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## A NATIONAL AGRICULTURAL PROGRAM—A FARM MANAGEMENT PROBLEM

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The subject assigned to me seems to imply that the laying out of a national agricultural program depends upon the satisfactory solution of the problems of farm management, an implication to which I cannot fully agree, although much can be said for it if discussion here is to be confined to the boundaries of the general topic of the session—the outlook for 1924-25. But it is not easy to see how even the solution of farm management problems on individual farms can be made to appear to be an adequate national agricultural program under prevailing conditions.

During the war when the need was for greatly increased agricultural production the national program was in fact a farm management problem. The urge was to produce without limit and at whatever cost, and the problem was how best to direct the farm operations to bring the result desired. During the war we were filled with patriotic fervor. The slogan was "Win the war—damn the expense" and we did things ourselves and urged others to do things which we would not have done under other circumstances. We had a national agricultural program, but it included only increased production and the means to that end, without regard to cost or consequences then or in the future. Because of that farmers generally have had a hard time of it since the war. Almost everybody assented to the program at that time, but it is unfortunate that the success with which it was carried out has made us so much trouble.

Now the need is not for greater production, but for a better adjusted production and to some extent for a reduced production. That is a very different matter and much more difficult. The plowing up of meadows and pastures and seeding to grain is quickly done. Getting the grain fields back into grass is not so easy. During the war there was a good market for everything produced. Now market demand is uncertain with little assurance of more certainty in the future. During the war prices were reasonably good and all could join in urging large production. Now men who value their reputations as wise counselors hesitate to advise.

To suggest that the national agricultural program for 1924, or for any other period except in time of national emergency, is solely a problem of farm management is almost to say that there is no national program. Good farm management is necessary to the successful carrying out of any program but it is not a program except as it applies to the individual farm. In times such as these the problems of farm management on most farms are reduced to the simplest terms and can be stated very briefly. For example: produce as much as you can and as cheaply as you can of what you can produce best; spend as little as you can; do without everything you can; work as hard as you can; make your wife and children work as hard as they can. Having done this, take what comfort you can in the thought that if you succeed in doing what you set out to do, and if most other farmers also succeed, you will have produced larger crops than can be sold at a profit and you will still be under the harrow. Nevertheless, the average farmer is forced by unhappy circumstance to adopt exactly that policy. It is not good for the farmer, not good for the farmer's wife and children, not good for the Nation.

There are those, perhaps, alas, even among economists, who lean to the view that it is by following such a program as I have outlined that the farmer must work out his salvation. They say that during the depression of the last three years the farmer found himself exactly where he ought to have known he would find himself. That such periods always follow wars, and that the farmer should have known that and set his house in order. That those farmers whose foresight was not as good as their hindsight must take the

consequences, work hard, keep cheerful, and if they survive take comfort in the thought that the next time they will know in advance what is going to happen to them. Those who take this view will interpret my subject as meaning that the only workable national agricultural program is the satisfactory solution of the problems of farm management on the individual farm by the individual farmer in the light of such helpful information as he can get.

What is meant when we speak of a national agricultural program? Is it a program which most farmers are compelled to adopt by brutal force of economic laws and which therefore becomes national without effort or desire? Or is it a program carefully developed after taking due note of conditions, their causes and effects, and having in mind, first the restoration of agriculture to a fairly prosperous condition, and, second, the maintenance of agriculture as the basis of our national life, and the farm home as the institution in which more than one-third of our young people are born and trained for citizenship? If we mean the latter then a national agricultural program must necessarily include more than the satisfactory solution of the problems of farm management.

If we should undertake to suggest a national agricultural program for the years 1924-25, it would include at least the following subjects as requiring attention:

First, good farming with all that those words imply; the use of good seed, good cultural methods, good live stock, good care and feeding, economy of operation, and everything else that goes with really good farming. Second, which is really included in the first, good farm management; wise selection of the crops to be grown, and of the live stock; adaptation to soil and climate; the best adjustment of acreage to conditions both on the farm and off; proper fitting of crops for market; and everything which ought to go with good farm management.

Third, making available to the farmer through federal and state agencies information which he cannot secure for himself but which he needs to enable him to produce efficiently and intelligently and to market to the best advantage. For example, knowledge concerning the control of

plant and animal diseases and insect pests; conditions at home and abroad which may influence demand for and prices of crops grown, such as probable production at home and in competing countries, business conditions, trade arrangements, in short, exactly the same kind of information the business man wants to know concerning probable markets for his products.

Fourth, how best to speed up the dissemination of knowledge concerning the new credit facilities provided by the Federal Government, not for the purpose of encouraging the farmer to go deeper in debt but to help him get out by securing lower interest rates for what he must borrow and by refunding his short term obligations for longer periods through which he may have a fair chance to work out.

Fifth, such reduction in freight rates as may be possible and still maintain good transportation service.

Sixth, how the government might effectively help the farmer bridge over this period of stress, which would include consideration of the various suggestions for disposition of surplus over and above domestic requirements in such a way as to bring up the domestic price to more nearly its normal purchasing value.

Many other subjects might properly be included in the consideration of a two-year national agricultural program, but the foregoing are perhaps of most pressing importance, and with the exception of the last two will probably be included by common consent. Discussion of such a program would immediately center around any suggestion of government activity. One group for two years past has insistently demanded government action to the extent of fixing arbitrary prices upon important farm commodities. Another group has denounced such proposals as highly immoral and suggestive of paternalism and class legislation in the worst form. A third group recognizes the need of more equitable prices for farm production and concedes the propriety of government action, but wishes to be assured that any action taken will do more good than harm. This latter group sees the folly of arbitrary price-fixing but is disposed to favor any arrangement which might accomplish the same purpose without making worse a condition which is already bad enough.



It will be conceded, especially in a group of economists, that the unrestricted operation of economic laws in course of time will bring about better material conditions for those who farm. These laws are at work. They are driving people from the farms and will continue to do so until farm production is reduced to a point where the demand for food will compel a fair price. They are transferring the land from those who farm it to those who do not, increasing the number of non-resident land owners and the attending evils. They are compelling those farmers who manage to hold on to follow methods of farming which deplete the fertility of the soil and permit their buildings, fences, and the productive plant to deteriorate at a rapid rate, thus using up capital investment. They are reducing the standard of living in the farm home, compelling hard labor by the farm mother, depriving the farm children of their rightful educational and social opportunities and creating in them a hatred of farm life which will lead them to leave the farm at the first opportunity. The free operation of economic laws is working all of these evils, and more.

If there had been no interference by the government with economic laws as they might affect the farmer during the war period; if there had been no arrest by the government of economic laws as they affect other groups, the industrial group, the transportation group, the labor group; then the case for the farmer could not be presented with such assurance. There was such interference. The farmer was deprived of many of the benefits which would have accrued to him from the free operation of economic laws during the war. Other groups have been protected by the government from the full sweep of economic laws. Once such a policy is adopted for the benefit of one group it must be applied fairly to all or we enter a period of economic and political disturbance, the result of which we can not foresee.

Confronted with national problems, agricultural, economic and political, of greater magnitude than ever before encountered, would that more economists might attune their ears to the Macedonian cry that comes up from the open country, give up for a time their detached seats of observation from which they view domestic and world activities with cold gray eyes and make records which may enable future economists to explain what happened, and why it happened, and take an

active interest in those who struggle with the definite purpose of helping them work out their problems, not alone for their benefit but for the benefit of the nation.

A national agricultural program worthy of the name must include consideration both of what it is practical to do and what ought to be done to help agriculture bridge over the present depression, and what must be done to build a stable and thoroughly sound agriculture for the future.

We have come to the turn of the tide in our agriculture. The easily tillable land has been occupied. For a considerable time at least the farmer must look for his financial reward not in the increased value of his land upon which he can realize either by sale or lease, but by average annual profits from productive work. Before many years our consuming population will use as much as we now produce, and from that time on the problem will be to increase food production on a basis which will feed our people at a reasonable price and give the producer a fair return on his capital and a fair wage for his labor.

Any large increase in production must come from land already under cultivation. There are considerable areas of new land which can be brought under the plough, such as dry lands subject to irrigation, wet lands subject to drainage, and cutover lands from which the stumps may be cleared, but the reclamation of such lands can not be considered until prices of farm products can be depended upon to yield fair returns on the capital and labor invested.

A national agricultural program looking toward the future therefore must include:

The strengthening of scientific research in the fields of production, utilization and marketing.

The direction of land settlement with the view to wise use by the farmer rather than with a view to profitable exploitation by the promoter.

The survey of our land resources with the purpose of encouraging most efficient utilization.

The direction of reclamation as the demand for food justifies the bringing in of additional areas, having in mind the needs of the community or region, as well as of the country as a whole. Reclamation policies should grow out of public needs and agricultural possibilities and not out of the dreams of engineers or the ambitions of empire builders who wish to

"develop the country" usually for the benefit of their own pocketbooks and at the expense of the hungry home seeker.

A consideration of the subject of land tenure with full recognition of the fact that as land increases in value an increasing percentage of it will be farmed by tenants because they can better afford to pay rent at a very low rate on land value than to burden themselves with the load of debt which would be necessary to undertake to purchase. The tenant system is inevitable and public interest should be directed not toward a hopeless effort to do away with it, but toward an effort to set up a land lease to which the parties will be not only the landlord and the tenant but the land itself.

The development of methods of crop insurance by which hazards over which the farmer has no control, such as weather, may be distributed over large farm groups instead of being carried as now by the individual.

The development of a more efficient and economic system of marketing, which would necessarily include the grading and standardization of crops on the farm and the direction, in so far as possible, of cooperative marketing efforts along sound business channels.

The consideration of transportation costs as they influence both production and the cost of marketing, and the reduction of such costs by readjustments in the production program or by shifting industries.

The study of transportation systems and methods with the hope of improving and extending them by greater use of highway and water routes.

These and other subjects of perhaps lesser importance must be considered in undertaking to prepare a national agricultural program. It is assumed that it is or will be the national purpose that the nation shall be self-sustaining agriculturally and that what needs to be done will be done to accomplish this purpose.

If such should not be determined to be the national purpose, then instead of a national agricultural program we shall have a class or group program, in the working out of which there will be class and group warfare, economic and political, with resulting evils from which we may earnestly pray to be delivered.

## **BUSINESS ECONOMICS—AN OPPORTUNITY FOR AGRICULTURAL COLLEGES**

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The vision of the field of Farm Economics during the past few years has progressed to a point where consideration is given not only to the farm as a business enterprise in itself, but to the great enterprise of agriculture as a whole. This vision of the service to be performed has become so inclusive as to lead to attempts to study the multitude of functions, governmental legislative, or of other industries that are found to affect agriculture. Thoughtful farmers are realizing as never before the community of interests that serve to connect agriculture and transportation in every form, agricultural and financial statesmanship, agriculture and the various processes of distribution that lead to final consumption, and indeed every effort of society in meeting its wants or desires may be considered from its effect upon agriculture.

Society has generally recognized its dependence upon agriculture as a basic industry. It has not yet become accustomed to an acknowledgment that the effects of other industry or functions of government upon agriculture are fundamental agricultural problems. Transportation, for example, represents an industrial group whose trend of development whether favorable or unfavorable, may become of as much importance to agriculture as does the question of soils, crops or livestock. Similar illustrations may be cited in the field of finance and others that need not be mentioned. Agriculture, by means of careful research establishing principles of equitable relationship, must cooperate in bringing about a trend of development of interdependent industries so that it may have equal opportunity to prosper.

Agriculture has not secured its share of the national income. The National Bureau of Economic Research in the study of "Income in the United States," states: "It is a fact worthy of comment that while about 30 per cent of the gainfully employed persons in the United States are engaged in agriculture, the industry normally receives only about seventeen per cent of the national income. The indications are that farmers, even though they are entrepreneurs and belong to a class usually considered as consisting of men of higher talents than

mere employees, nevertheless obtain on the average less money value in return for their efforts than do the average employees in most lines of industry. Only in the years 1918 and 1919 did they receive more than the average earnings for all employees in the United States, while in 1920, their rewards fell to a mere fraction of the average in other lines.”\*

Somewhat parallel results, that at least coincide with the above statement, have been presented by Gray in his discussion on the “Accumulation of Wealth by Farmers.” He states: “Broadly speaking, the figures suggest that the accumulation of wealth in agriculture would be a very slow process without on the one hand the practice of rigid and painful thrift or on the other hand the fortunate incident of rising land values.”

Herein is involved a problem—that of more nearly adjusting the return of labor and capital employed in agriculture to a parity with that of other industry, to which our agricultural colleges and the federal Department of Agriculture may devote much attention and study. It is a problem for the farm economist that offers as fundamental a field as the far-reaching investigations which have meant so much in solving the problems of soil, plant and animal life. It is a reason for the serious attention that is being given to the business relationship of agriculture.

### *Economics Covers Broad Field*

The past five years have witnessed an unprecedented development of ideas, thought and speech, relative to the economics of distribution of agricultural products and of the disposition of these products. Economics to the popular mind has been discovered as a science that may relate to agriculture. Its application has been limited in the thought of many of those functions that relate primarily to the disposition of products or to their finance. In many popular discussions, it would be difficult to recognize that economics has a much broader service than the above implication. If we accept the statement of Taylor that “agricultural economics treats of the selection of land, labor and equipment for a farm, the choice of crops to be grown, the selection of livestock enterprises to be carried on, and the whole question of the pro-

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\* “Income in the United States”—pp 62-64—Nat. Bur. Ec. Research.



portions combined," it becomes apparent that all activity on the farm or connected with it assumes an economic aspect. There may be an economics of production or an economics of distribution, but the field of economics may not be limited to that part of agriculture that deals only with the disposition of a product.

\*"Agricultural economics deals not only with economy in production but also with the problems of justice in the distribution of wealth among the various classes of society with especial reference to the effect of the wages system, the land system, the credit system, the methods of marketing, the comparative standards of living of country and city workers, and the relative opportunities for accumulating wealth by the different classes, upon the farmer's share in the national dividend and upon the relative well-being of the agricultural population." Possibilities of freedom of investigation in the field of agricultural economics require the acceptance of a broad interpretation of the field. A curtailment, even though coinciding with the conception of many that it deals only with the disposition of products, is too great a limitation.

#### *Research a Necessity for Progress*

A popular misconception of a need or of a purpose may bring a train of difficulties to great public institutions. The vital interests of farmers and of agriculture as a whole are specifically the field of investigation and of education for agricultural colleges, experiment stations and the United States Department of Agriculture. Such misconception relative to the investigations and their progress in the economic field has undoubtedly developed in many sections. There has been an assumption that these institutions have largely failed in giving consideration to the economic needs of agriculture. Perhaps much of the impatience with the economic work of institutions has been due to the desire to have swift and painless cures for difficulties. Instances, too, have been known where the presumed "failure" has been that of refusing support to "pet remedies" advocated by individuals who desired endorsement rather than suggestion or modification. There may be instances in which the very force of criticism has brought about the support of projects even though against sound in-

\* "Agricultural Economics," Taylor, p. 7.

stitutional policy. All of which emphasizes the need of leadership based upon fact rather than theory or prejudice and the importance of teaching sound practice through the institutions.

There is basis for the thought that progress in determining economic fact has been slow, for it must be admitted that certain phases of agricultural interests have been but barely touched upon by the colleges and Federal Government. The institutions provided for agricultural investigation have progressed but slowly in that phase of agricultural economics that treats particularly of distribution, financing, and the farmer's broader relationship to other industry and legislative problems. Neither have institutions made more than appreciable progress in teaching farmers in this field of economic fact. Too often and too long have our institutions either maintained silence upon these problems or reflected to a degree popular opinion or popular demand.

The reason for this readily occurs to you who are connected with institutional work. It is known that investigations in this particular phase of economics have been few and that until there is a body of fact, little advance may be made in adult teaching practice. Funds have been difficult to secure for investigation, and it requires much time to obtain results upon which definite economic fact may be based.

Too frequently the farmer has been forced to rely upon organizations and the individual opinion and observation of the demagogue for this information, with the result that agriculture drifts hither and yon, buffeted by the rapidly changing theories of its many advisers. Much of this advice assumes a political complexion and it is safe to predict that the major part is tinctured with individual viewpoint or advantage. The great opportunity of the agricultural colleges, as well as of the Federal Department of Agriculture, lies in assuming its proper function of teaching what may be called, for lack of a better term, business economics, to the farmers of the nation.

Large numbers of farmers are thinking seriously on the question of the part that investigational institutions should take in meeting the need for information in the business field. They do not concur in the thought so frequently expressed that business is the only and the most vital need of agriculture, nor do they consider the investigations that have con-

tributed so much to the economic welfare on the farm as a total loss. As I conceive it, they do not desire that the institutions abandon the economic developments in soils, crops, livestock, etc., which they have brought about, but rather that they should add to their functions by entering and advising in this new field of business and applying its implications to the processes of production. The demand is evidently growing. I well recollect that when first entering farm management work over twenty years ago, progressive farmers seriously discussed the question of whether their time and the time of their families represented a part of the cost of production. Many even expressed serious doubt that cost of production was a matter of interest or of importance to agriculture. Compare the present-day viewpoint for the measure of advance in thought.

*Colleges Have Not Wholly Failed in Meeting Demand for  
Economic Research*

Many agricultural colleges, as well as the Department of Agriculture, have sensed, and even anticipated to a degree, this added opportunity of investigation and service. The limitation of funds, the time required in training competent investigators and in making a small beginning, have made results appear meager. Yet the expression of public opinion should serve as a spur for greater effort.

One of the prominent and influential midwestern farm papers, in commenting, within the past three years, upon the need of economic investigation and the service of the agricultural colleges, stated:

"There is little hope now of the farmer getting from the agricultural colleges the sort of knowledge he most needs. Perhaps the best evidence of this is the fact that after all these years the colleges have not made much of a beginning in this direction. They have not even seen the need. Their emphasis has been placed almost wholly upon greater production. They have been a fine thing for the individual farmer who has improved the opportunity to learn how to produce more and better crops and livestock, and thus gain an advantage over his uneducated neighbor. But the colleges have given little attention to the needs of the great mass of farmers as a class, especially to teaching them how

to protect themselves in their economic struggle with other interests. \* \* \* \* In many of these agricultural colleges there are men who have made a beginning in agricultural economics, but mostly they have had a hard time to get money enough to carry on their work, and with a very few possible exceptions none of them have even begun to get at the meat of the matter."

The problem of the farmer, as stated by this same publication is "that a wholesome and satisfying country life depends mainly upon a generally prosperous agriculture brought about by an understanding of economic conditions and the application to agriculture of business principles of which farmers as a class are woefully ignorant."

Time and again the need of a shifting of the emphasis in research as conducted by the experiment stations has been pointed out by the various leaders. Former Director Jordan, of the Maine Station, in presenting the changes in policy of agricultural colleges through a fifty-year period, emphasized the "economic and social" change that has taken place in agriculture. He pointed out the consequent shift that should take place in research. In the early organization of agricultural colleges, the economies possible in production or the economy of the multiplication of production were matters of paramount interest. At the present time, interest revolves about the human and business relationships. Therefore, the need has arisen for the conduct of extension research to determine social and economic principles applying to agriculture, that a well-equipped leadership may be developed. Effective leadership must be based upon research. Only in this manner may the truth be ascertained which will afford the basis of progress. Otherwise, the slow process of trial and experiment by society, with the final rejection of the features that are unworkable, presents the only basis of betterment.

*Results of Agricultural Economic Investigations Now Being  
Applied*

Many of our institutions have made some progress in their investigation of business economics. The investigations performed in the field of farm management are a

splendid example of a phase of business economics that has been developed and taught and which is now contributing to the farmer's welfare. Many remember the initiation of investigations in this field. Much time was consumed in determining methods and in convincing administrations that such work was investigation and that farmers would utilize its results. Within practically twenty-five years, a considerable body of knowledge in the "business of farming" has been developed. The objective of research in farm management, namely, discovering and making available facts which can be utilized in organizing and conducting the farm business for the purpose of securing the greatest continuous profits, and highest satisfaction for the farm family, has been partially attained. One has but to refer to the progress made in studies of cost of production, the constantly increasing inquiry upon the part of farmers as to the organization of their farms, the better understanding and application of diversity to the farm business and many other features of farm management that are freely applied. Farmers are using this information and it is found in the extension program of teaching in almost every state. This represents a real accomplishment in the field of business that institutions may well be proud of. It is well known that much of the public interest in phases of investigations referred to, has been because of their value in the argument for higher price. Cost of production for a time was almost a shibboleth to the farm leader. Its value as recognized by the farmer, however, is an aid in studying the efficiency of his own farm and comparing costs.

#### *Other Business Phases of Investigation Open*

The time is propitious to determinedly bring about intensive investigation of the additional fields of business economics. Farm management investigations have blazed the trail. Many investigations have been completed sufficiently to give a firm foundation of investigation upon which to base agricultural instruction for the farmers. Much of our present information may not be popularly received. Early information on crops, soils and livestock met the same fate. Yet that part which was correct in principle has now become accepted practice.



The possibility of the passage of the Purnell Bill for the purpose of further endowing the agricultural experiment stations and providing for economic research, offers encouragement for future investigation in business economics. This bill materially broadens the scope of the experiment stations and makes provision for the financing of new fields of investigation. A brief recently filed by the Committee of the Association of Land Grant Colleges, in favor of this bill, recognized the situation in these words:

"With the development of agriculture, new fields have opened in which the demand for reliable knowledge, based on research, is insistent. Chief among these are the farmer's economic problems, including questions of farm management, grading and standardization, transportation, storage, marketing of farm products, and financing agricultural enterprises; the wide and varied fields of home economics; and the intricate social problems of country life. There are physiological and pathological, as well as economic, problems involved in the storage, handling and transportation of fruits and vegetables which strike at the very base of our ability to prevent waste and losses. If the American farmer is to prosper and meet the world competition, he must be enabled to lower the costs of producing and of marketing his products. The whole Nation is interested in this accomplishment."

Must not agricultural colleges, while organizing for this newer field of investigation, maintain in the minds of the agricultural interests the thought that though the field of business economics is of great importance and is to be vigorously entered upon, yet the other phases of economic investigation are of equal importance? There is always danger that the desire for so-called economic adjustment may be looked forward to as a panacea for all ills, when we know that it can only apply to a certain relatively small field that it may affect. Coöperation, finance, the tariff, agricultural insurance, freight rates, a merchant marine, taxation, the relationship to other industry and other economic questions, are all important to agriculture, but the adjustment of any one of them determines but a small part of a greater success on the farm. Agricultural institutions may have partially

failed in the past through underestimating the influence of these questions and the part that agricultural investigation should play in their settlement. We should use care in this hour of stress not to overestimate their influences and their bearing upon agriculture.

### *A Forward Look*

It is not too much to expect that in the next few years, our institutions shall have organized the field of research in the principal phases of business economics as it applies to agriculture. This represents the great present opportunity of agricultural colleges and experiment stations, provided we combine with investigation the active teaching to the farmer of facts as we ascertain them. We must become prepared to teach to the farmer in his rural community the facts that bear upon the broader and national aspects of the agricultural problem. They must be explained in very simple terms and so demonstrated that there shall be no question of political partisanship or membership of a particular economic school of thought. The interpretation should be that of the essential need of agriculture, rather than the claims of the industry or of vocational groups.

The question of the future of agriculture, its relative prosperity and development, must not be permitted to become a class struggle. Ideals dominating the thought of class do not fit into the ideals of American agriculture. An acceptance by the farmers of a viewpoint of class means a failure in the future. Agriculture must represent a part of a national policy of development—one based upon the adjustment, so far as may be, of the various forces affecting prosperity and if not favoring at least not penalizing agriculture. Research is the only vehicle by which we can avoid the rough and sometimes disappointing road of experience.

One of the national farm papers recently expressed the thought that "the men who are best qualified to serve agriculture now are neither politicians nor aspirants for political or private jobs, nor are they high-salaried experts. Those who will eventually do the best that can be done for the good

of farming as a whole are our best and busiest practical farmers, our broad-gauged business men, the older heads of our agricultural colleges and experiment stations, and county agricultural agents who have not got their feet off the ground by working on air castles of theoretical economics."

This thought represents the germ of the development that should take place in business economics. Cannot our colleges and the Department of Agriculture early agree upon a content of business fact that may with certainty be taught? Does not the extension force then become the logical organization to carry these facts to agriculture? We are all too well aware of the present conflict of teaching, individually from an extension standpoint, in the realm of business economics. Much of it is a floundering endeavor to find some solid ground from which to advise the farmer.

#### *The Problem—Dissemination Through Regional Groups*

As an illustration, the several states of the South are interested in the production of cotton, a crop of national as well as sectional importance. The economic position of cotton in the South, the logical development of it as a part of the agriculture of the region, is an economic problem the facts of which should be ascertained and as vigorously taught as is boll weevil control.

Pork production is a national industry. Certain warnings as to probable over-supply and uncertainty of the future have been issued by the Bureau of Agricultural Economics. Have these facts and this information been brought to the producers by extension staffs as energetically or as forcefully as facts of soil improvement, the need of pure-bred sires, or even pig clubs? The answer is they have not. Many other features similar in nature may be cited.

Farmers desire just such information. They may or may not use it. Kentucky is interested in the production of tobacco. A few months ago, the Bureau of Agricultural Economics in giving out planting intentions, indicated a possible overproduction of tobacco. This information was handled as vigorously as possible through our Extension Division. It is to be noted that in a recent report, the Bureau stated that

the acreage of tobacco had shown a decided falling off from the intentions report. Possibly the falling off may have been due to weather conditions or other factors. However a duty to the people was performed when the facts were vigorously presented to them.

Tariff is an example of legislation that may greatly influence the prosperity and development of agriculture. I can not find that experiment stations or the Federal Department have ever attempted to teach the facts relative to the effect of tariff policy upon agriculture. Resident teaching has brought forth the fundamentals concerning the tariff policy, but it is safe to venture the assertion that farmers are largely informed upon tariff from the platform of political parties. Here is a need for independent research that will enable a presentation of fact by regions or nationally, that farmers may know its relationship to the future of agriculture. It is not difficult to conceive that this may be fully as important an economic problem for teaching through extension as is cooperative organization.

I hope that the time may soon arrive when through agreement, all members of our extension staffs will be given definite facts and instructions to convey in this field. It may be that a grouping of states and the Federal Government deciding upon economic policy, each party thereto performing a part of the research involved, will give the basis for promulgating fact which will find wide acceptance. We may then truly begin to prepare ourselves for a great national or regional agricultural policy, just as we have developed rather well-rounded policies of livestock and soil relationships.

### *Conclusion*

In this brief statement, I trust that I have made clear the thought that the present opportunity of the agricultural college is the development of investigations in the field of business economics as applied to agriculture. It then becomes necessary to organize the investigational, the resident teaching and the extension staffs to convey information and to teach the fundamentals of business economics to the farmer. Much of the investigation required is broader than state lines. Therefore, it involves sectional agreement upon policy and indeed often national assistance through the Federal Depart-

ment. In many fields, the Department of Agriculture is the logical leader.

With such organization, results of investigation will provide a sound basis for advice and the teaching of the many intricate and perplexing problems of the business of agriculture. The base of the pyramid of farm business is Farm Management, but the apex of the structure, leading to the complete economic welfare of the farmer, is the remaining phase of Business Economics. When agricultural institutions have well entered upon this program it may then be said that they are in position to advise upon a sound agricultural program, having for its basis a prosperous and a permanent agriculture and developing a wholesome country life and a satisfying career for the farm family.



## **COURSES IN MARKETING**

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Marketing may be viewed in the very narrow sense of selling what one has produced for sale. It may be broadened to include all those activities and institutions involved in the handling, storing, transferring, transforming and ultimate sale to consumers of specific products. To this enlarged concept may be added that of finding ways and means of improving the present marketing system. These may include standardization, a better adjustment of shipments to the demands for the specific products in the various markets at a given time and a better equalization of shipments throughout the season. It may include methods of sale and methods of settling disputes such as public inspection services, systems of arbitration, and in this day of movements for self help among farmers in their efforts to solve their marketing problems, the science and the art of cooperative marketing comes in for a large share of the time and attention of the student of agricultural marketing.

But even this broad concept does not include all that is included in the present-day discussion of the farmer's marketing problem. So broad is the concept as used today as to include the whole problem of a fair share for the farmer in the national income. This includes, therefore, property rights, contracts, credit, custom, competition, monopoly, legal restrictions of various kinds and the standards of living of the various groups of population as they affect the distribution of wealth.

When viewed from the broad standpoint of the basic problems of the distribution of wealth, the student of marketing problems finds himself facing the whole field of economics, both theoretical and applied.

How far the student should enter this field depends upon the end he has in view. If he contemplates entering the actual work of marketing a specific product and does not expect to try to solve the deeper problems of marketing, the courses may be limited to the geography of production, the centers of consumption, the methods of handling the specific product, the marketing institutions involved, whether boards of trade,

commission systems or cooperative organizations, the methods of financing the harvesting, storage or movement of the product and the business practices involved.

If, however, the practical man cares to become aggressive in instituting improved methods he should make studies of methods and practices in other lines than his own and in other countries than his own. He should master the theory of value in its various applications and become a student of prices, which involve equipment in the field of statistical method. This soon leads far beyond the field of elementary studies in economics and marketing. As one views the subject of marketing from the broad public standpoint, and as the general welfare rather than individual gain becomes the goal, nothing short of a thorough training in the whole field of economics becomes essential to the most efficient prosecution of the work. More concretely stated, the student should take elementary courses in economic geography, economic history, accounting and statistics as background and method courses, followed by a course in economic theory so taught as to give the student a clear view of economic forces operating under a great variety of conditions, static and dynamic.

The course in economic theory should be followed by a course in economic institutions and economic legislation as they provide for and set metes and bounds to economic activities and as they modify the distribution of wealth.

With these basic courses in mind, the student may approach studies in marketing methods, in cooperative marketing, and other methods of improving the marketing system, equipped to view analytically and critically each proposal or practice with a view to taking from it that which is helpful and discarding that which can be improved upon, and working out new methods which will better attain the goals of fairness and efficiency.

With this introduction to the character of the problem and the amount of training required to attack the problem from the various angles, we will now turn to the four years' course in Agriculture and consider what courses should be included. I shall assume that any high degree of specialization, looking toward research in the field of marketing, should come in the graduate rather than in the undergraduate course.

The undergraduate should take a well-rounded course of which economics should form a continuous part from the

freshman to the senior year. In the freshman year the student should take courses in economic history and economic geography. The first of these courses gives a picture of the evolution of American industrial life and the many problems arising out of division of labor in its many forms, and gives an historical background in terms of which the student may consider the various economic problems of the day. As a result of this study, the student will be impressed with the fact that since conditions are constantly changing, it is always important to take into account the dynamic forces as well as the static forces. In addition to a general course in American history, which of course every student should take, at least one semester should be devoted to a special course in economic history with special reference to the history of agriculture and the development of markets for agricultural products.

It is desirable also that every student of agriculture have some knowledge of European history, especially of the economic development of Europe, and the relation of the highly developed centers of Europe to the world's food supply. In the agricultural and industrial development of Europe, the student will find the explanation of many important phases of our agricultural development, as well as of the present status of our markets in Europe for our agricultural products.

The course in economic geography should be, primarily, agricultural geography but should not omit the location of mines, waterways, railways and centers of manufacture and final consumption, as they affect the marketing of farm products. This course should provide for the student a clear mental picture of the location of the different lines of production in the United States and abroad, the physiographic and economic forces that determine their location, and the movement of the farm products from the farm to centers of consumption. Based upon data assembled by the United States Department of Agriculture and published in the "Geography of the World's Agriculture," in the "Atlas of American Agriculture" and in the recent and forthcoming Yearbooks of the Department, materials are now available to give a thoroughly good descriptive course in agricultural geography which will give the background for thinking in terms of those economic forces with which the farmer has to deal in the production and marketing of farm products. A course such as I have in mind has been given for many years at the Massachusetts Agricultural

College, and the Bureau of Agricultural Economics has found the students who have taken this course especially well fitted for service in the Bureau.

In the sophomore year a general course in economics and another in money, banking and credit might well be accompanied by courses in accounting, statistics and commercial and agricultural law. Having taken these preparatory courses, the student will be prepared at the opening of the junior year for a general course in agricultural economics which should of course include a survey of the problems of agricultural marketing, cooperation and legislation, as methods of solving these problems.

Among the other specialized courses, which may follow, should be included a course in marketing functions and institutions which will give a clear picture of the present-day marketing system viewed from the standpoint of efficiency in transferring goods from the producer to the consumer and from the standpoint of an equitable distribution of the consumer's dollar among those who have done the work. This course should give a detailed description of the methods of marketing the principal agricultural products. Grain should be followed from the producer through the local elevator to the central market and then to the mills in this country or abroad. The course should develop in the student's mind a clear picture of the transactions that take place at each stage in the progress of the product from producer to consumer. It should develop an understanding of the forces which determine the bargaining power of buyer and seller, the part played by the official standards for farm products, by the great market news services, by credit systems, and by organized markets. It should develop an understanding of the whole subject of demand and supply and their influence in determining the central market prices, charges made for middleman services and the price that the farmer receives. Marketing of grain should be studied from the standpoint of the relative advantage of marketing in the different months in the year, the relative advantages secured from the marketing of different classes and grades of grain and the different results secured through different methods of marketing. The marketing of cotton should be studied in a similar manner and students in southern agricultural colleges should go much into detail in the problems of cotton marketing from the local dealer to the

operations of the New York, New Orleans and Liverpool Cotton Exchanges and the sale of the product to the domestic and foreign spinners. One by one the other farm crops should receive full consideration. In each case effort should be made to gain a thorough knowledge of the areas of production, centers of consumption, methods of transferring products from producer to consumer, the institutions devoted to private and cooperative middleman services and the ways in which these institutions function.

The marketing of livestock and livestock products lends itself to clear and interesting studies. In addition to the general considerations common to the crops, livestock may be studied from the standpoint of the time of year to prepare stock for the market. Price curves showing the time of year when given classes of livestock can be sold for best prices should be studied in the light of the relative cost of producing and preparing livestock for delivery at the different months in the year. Here also the problems of price relations between feeder and fat cattle and the relations between corn and hogs offer exceedingly interesting topics for consideration. My attention has also been called to the fact that the time of year to market particular classes of horses is a subject worthy of every consideration.

Enough has been said to indicate the detailed picture which the student should have of the marketing problem as applied to specific products and I believe it will be recognized that if the student is to come to a full understanding of the real character of the problem involved, he must have had a thorough preliminary training which will enable him to understand what happens at each stage in the marketing of each product. This course in marketing should not fail to discriminate clearly between the general economic forces, such as standards of living, changes in world production, or, world demand on the one hand and excessive charges for middleman services on the other, as factors determining the prices received by farmers for their products. In the years since the war, the marketing system has been blamed for many things for which it is not responsible and which cannot be remedied by changes in our methods of marketing.

Whether or not it is found possible to provide all of the previously mentioned courses, a course in agricultural cooperation should be given in every agricultural college in the coun-



try. This course should include a survey of what has been done in cooperation in the various parts of the United States and in foreign countries. It should give an analysis of the different forms of cooperative organizations which have been promulgated, whether they relate to the purchase of farm supplies or the sale of farm products. Full attention should be given to the results which have been secured from the application of the different forms of cooperation to the sale of the different farm products. Attention should be given to the causes of failure, as well as to the causes of success and to what extent education on the marketing problem and the general understanding on the part of the farmers, themselves, of the purposes of cooperation have been essential to success in cooperation. Detailed studies should be made of the different types of cooperation effective at the present time in this country and abroad. From this study of the forms and the functions, the successes and the failures, of cooperative undertakings, the course of study should lead to a thorough understanding of the conditions, the principles and the practices which are essential to success in agricultural cooperation.

The students interested in marketing probably will want to elect courses in agricultural writing for publication. Marketing work involves public contacts to such a large extent that training in writing and in the principles of advertising is desirable.

To some it may appear that when the courses in farm management, land tenure and agricultural credit are included along with the courses which have been herein outlined, entirely too much economics will have been provided for the undergraduate course. In reply, attention may be called to the fact that in Texas, where a full measure of economics is being offered in the agricultural course, increasing numbers of students are studying agriculture, whereas in other institutions where the minimum of economics is offered the number of students is decreasing year by year. Where it is necessary to minimize the amount of work, I would compress the work in general agricultural economics, economic geography and economic history into one course, but I would not reduce the amount of work on the general course in marketing, nor in the course in agricultural cooperation.

I wish particularly to emphasize the importance of the student's securing a broad view of the economic world in action, so that he will have the proper background for taking the initiative in solving marketing problems and the basis for

appraising the various plans submitted by others. The study of economics should lead to action, not inaction; to the earnest seeking of ways and means of bettering conditions and not to acquiescence in explanations of why nothing can be done and how, in time, all problems will solve themselves. The long time point of view in economics is important but fortunes are made and lost in the short-run. Hence, in applied economics, full consideration must be given to what may be done to ameliorate conditions in periods of depression, even though in due course of time, after many people have lost their lifetime savings, matters, from a national point of view, will again right themselves.

The laissez-faire policy in matters like these is less helpful than the efforts of the ignorant and misdirected seeking to apply radical and unworkable schemes, for these activities will stimulate thought and ultimately may lead to right action, whereas there is no chance that improvements will result from inaction. I remember my mental reservations when my friend, the lamented Charles McCarthy, used to respond to a man at the college who said, "We do not know enough about this matter to proceed," "Let us get into action and make some efforts and we shall probably see more clearly what to do." However, my experience and observation during the last five years have led me to believe that McCarthy was right. That is the principle that has been followed in the development of the Bureau of Agricultural Economics. No less attention should be given to research. In fact, the research work should be made more adequate but action should not be postponed until the last word of the research worker has been heard. Our practice is to make a survey of the problem, to ascertain what is known, start such action as seems practicable and, at the same time, seek information. It has been found that in the process of doing, learning is rapid, and while some mistakes are made, the mistakes are fewer and less important than the great mistake of inaction.

But economics can and will do more than this. Economic studies that are worth while will look toward more intelligent programs of action. There are three classes of programs of action to which proper economic investigations lead. First, the study of economics should lead to a practical and profitable program for the individual farmer. An understanding of the economic forces and adequate up-to-date information re-

garding economic facts, which should be provided constantly by public sources, give the basis for the working out of a program by each farmer and the making of adjustments of farming operations to changing conditions. Up-to-date information interpreted in the light of basic economic principles enables the farmer not only to choose more wisely what he should produce but also to select more wisely the time, method and place of marketing his product.

Second, the study of economics should lead to practical and profitable programs of action for groups of farmers. Group action on the part of farmers, made effective through well-organized cooperative institutions, is making great progress today. Ultimate success depends, in a large measure, upon the intelligence and honesty of purpose of the leaders and upon the understanding which the rank and file in the organizations bring to bear upon the problems these organizations are attempting to solve.

Third, economic investigations should form the foundation of programs for State and Federal economic legislation affecting farmers. Programs are ever being brought forward. If properly directed, these legislative programs may be helpful. If students of economics insist upon basking calmly in the light of a laissez-faire philosophy and in deprecating such economic legislation as is brought forward, they will fail utterly to perform their duty toward the State and the Nation. Nearly every economic program advanced, however radical or wild, usually indicates a pathological condition somewhere which should be diagnosed and prescribed for by an expert who, because of his training and experience, is best able to render this service.

The one way to eliminate radical economic programs and radical leadership and to improve the quality of the agricultural statesmanship of this country is for the economists to take an active and leading part in developing sane programs of action that will get results. Every student who graduates from an agricultural college should consider it a part of his duty in life to provide more intelligent economic leadership in the development of these three classes of programs. Intelligent leadership will enable the country to avoid much loss of time and misdirected energy in solving marketing problems. It is one of the first duties of every agricultural college to train this leadership.

## **AN ATTEMPT TO FORECAST THE FUTURE TREND OF FARM PRICES**

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The primary factors affecting the prices of farm products are:

1. The quantity of money.
2. Cycles of over and under-production.
3. Cycles of high and low demand.
4. Long-time changes in ease of production or in demand.
5. Season of year.
6. The weather and other accidental causes.

In this discussion, attention will be given to the first three of these only.

On a gold basis the general price level in Europe is much below prices in America, and is likely to continue so. For this reason those countries are very anxious to get into a position where they will not have to buy from us. They are bending every effort to become self-sufficient as to food supplies.

Agriculture has recovered from the war much more fully than has city industry. The world supplies of farm products are high compared with world demand. World supplies of manufactured goods particularly of equipment and permanent improvements are low compared with world demand. This makes prices of farm products low compared with other things. Agriculture is being depressed at the same time when manufacturing is stimulated.

Temporarily the growth of population was retarded and the world was made poor by the war. This has checked the demand for farm products. With gradual recovery of purchasing power and growth of population it is to be expected that a time will come in ten to twenty years when the supply of farm products will be low relative to demand. Since many years are required to make striking changes in agriculture, a period of agricultural prosperity may be expected.

While the general price level of America will doubtless remain high relative to Europe for some years, the prices of farm products which we export to Europe must be low relative to prices in Europe for these same things.

The problems that have caused this subject to be placed on the program are due to the quantity of money. The basic reason for the present mal-adjustments are great financial

inflation followed by drastic deflation. Such a condition causes secondary currents in production and in demand that in themselves become causes of further disorder.

For short-time forecasts the cycles of high or low production and of high or low demand are of primary importance but these would soon become of no more than normal importance if a stable general price level were maintained. The primary problem is, therefore, not an agricultural question but a question as to whether further financial inflation or deflation is to occur. Agriculture is an industry with such a slow turnover that for it the long time forecasts are most important.

One of the reasons for expecting deflation to continue is that this is the usual course of events following sudden expansion of the currency without an increase in the quantity of the basic material, unless a new currency is established. With a given stage in civilization a given quantity of basic material will sustain about so much money. Over long periods of time changes in banking and business methods make it possible for a given quantity of the basic material to sustain decidedly different quantities of money, but while great changes may come in time, they are not likely to come suddenly. The examples showing the tendency to return to pre-inflation prices are very numerous in history.

Gold is temporarily very cheap. It is even cheaper than wheat. The reason why gold is so exceedingly cheap is that one of its major uses, i. e., as money, has largely ceased. In only a few countries of the world is it now in use. Furthermore, much of the world is very poor and many persons have sold their gold ornaments to buy food. This gold has drifted into the banks. The world gold reserves in 1922 were 89 per cent above the 1913 level. The reserves in the United States were 358 per cent above the 1913 level.\*

When gold is very cheap, the search for it is checked. A prospector must now find twice as much of it as before the war to buy himself a pair of shoes or a blanket. Even if there may be great supplies of gold yet to be discovered, it is not probable that they will be found by the prospectors who are hunting for oil.

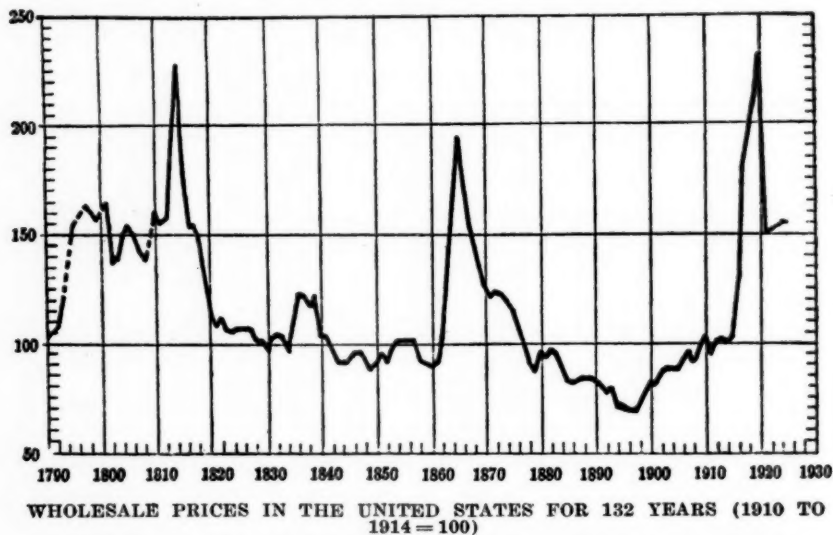
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\*Warren, G. F. Prices of Farm Products in New York, Cornell Univ. Agr. Exp. Sta. Bul. 416, p 11, January, 1923.



The production of the present mines is checked. The mines of Africa seem to be keeping up production fairly well, but world gold production in 1921 was 70 per cent of 1913 production.

When wheat, or gold, or hogs are very cheap relative to other things, the assumption is that they will eventually come into adjustment again. In fact, the check on production may cause a swing to the other extreme for a time and the low-priced products may be high. Apparently this happened in the generation following the Napoleonic Wars and again after the Civil War. The difference is that if wheat is out of adjust-



Prices rose very high at each of the war periods. After each war there was a precipitous drop. After the War of 1812 and the Civil War the general tendency was downward for a number of years. Will this history be repeated?

ment with other things, its price is likely to come to the price of other things but if gold is out of joint, our monetary expression of other things comes to gold.

The presumption is that the wars in Europe will gradually subside and that, one after another, these countries will return to the use of gold as money. When this time comes, considerable gold will be withdrawn from banks and used for currency. It seems highly probable that, after paying \$20,000,000,000 (as it sounds to a German) to mail a single sheet of paper to America, when they return to a gold standard, i. e., when the currency is actually exchangeable for gold, that

there may be more than the usual preference to receive and handle the actual gold pieces. In any event, it seems highly probable that eventually considerable of our gold will find its way back to where it came from. How soon the countries of Europe will be on a gold basis is highly problematical. If the reparation question is settled before conditions in France and Germany get too bad, it seems probable that England and possibly Germany may soon be on a gold basis. Probably France and Italy can never return to a gold basis except by reducing the gold equivalent of their currencies. If they attempt to return to a gold basis by deflation the time thus spent will probably be time lost so far as returning to a gold basis is concerned. However, it seems probable that the European demand for gold for money will develop gradually.

If Civilization continues to progress it is to be expected that the physical volume of production will increase rapidly, more business will be done and more money will be needed if the price level is to be sustained.

Some of the things that might prevent prices from falling are:

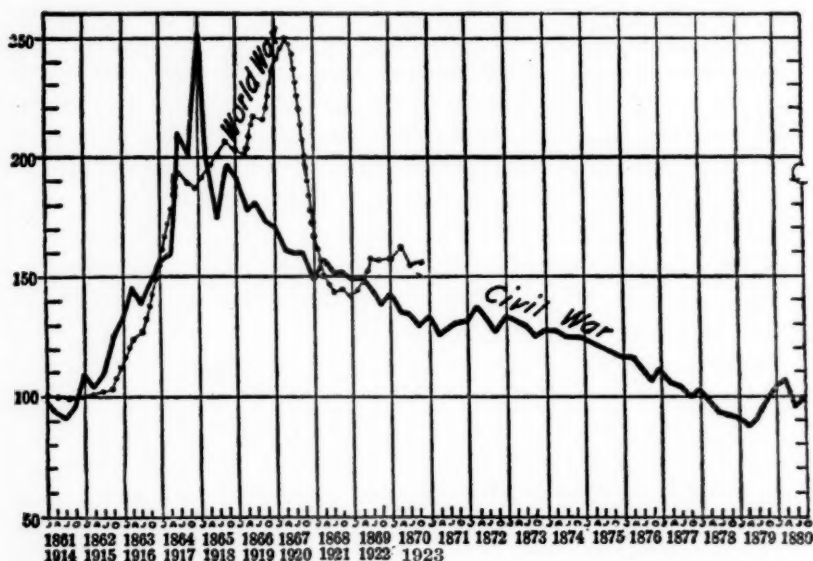
Reinflation due to wars or other causes. If the soldier bonus bill is passed in a form that calls for new loans of considerable volume a moderate and temporary inflation may occur, but this would only make a short delay in the time when prices fall.

Discovery of new gold mines or of cheap new processes of working low grade ore would sustain prices.

In 1919 some persons argued that because of the Federal Reserve System, prices would not fall. The fall that followed was the most violent that has ever been experienced in America. It is now contended that that system will sustain prices in the future because less gold is needed for a given quantity of money. We have the system now, and our gold reserves in 1922 were 358 per cent above the 1913 level, yet prices were only about 50 per cent above pre-war.

It is possible that some new monetary system may be devised that will use gold as a basis but that will maintain a stable price level. Desirable as a stable measure of value is, I doubt whether any such system will be adopted in the near future. Unstable money arrays class against class, and we are now too busy accusing each other of having caused the

troubles that came from unstable currency to give any serious study to the currency itself. When after trying tariffs, regulation of the packers, investigation of the Board of Trade, cooperation, diversified farming, export corporations, and tax reduction, it is found that public and private debts cannot be easily met with a declining price level, attention will probably swing to the money question so quickly and so violently that sober discussion will not be possible. Personally, I should



WHOLESALE PRICES DURING THE CIVIL WAR AND WORLD WAR PERIODS  
(FOR THE CIVIL WAR 1856 TO 1860 = 100, AND FOR THE WORLD  
WAR 1910 TO 1914 = 100)

Following the World War, prices did not fall so soon as after the Civil War, but they fell more precipitously and fell farther.

There is considerable similarity between the price movements of the Civil War and World War periods. The writer expects this similarity to continue.

like to see such discussions now in a peaceful way while other things enjoy the limelight. It is certainly a comment on the inventive genius of man that while measures of length have been standardized for several centuries, the thermometer invented over 400 years ago, and we can measure the strength of the lightning and the length of a bacterium, yet we have not put into use a stable measure of value.

The farmer who borrows money of the Land Bank to be repaid in 33 years, or the taxpayer who is back of government bonds is gambling on the success of the chemist and the pros-

pector in getting gold. If they are highly successful he wins, if unsuccessful he loses. Only if their success happens to be just right to keep pace with the currency needs do both the borrower and the lender receive justice.

In so brief a paper it is not possible to discuss all the factors bearing on the question. Summarizing all the probabilities, my guess is that the general tendency of prices for the next ten to fifteen years will be downward and that prices will closely approach or possibly go below the pre-war basis. If this should be correct, the status of agriculture can be foretold with a high degree of accuracy. Some of the results would be as follows:

1. Great care will need to be exercised in buying anything that is much above pre-war prices unless it will pay for itself quickly.
2. Since 1896, prices have been rising more than 2 per cent per year based on the middle year as 100, and the emphasis has been on production. The emphasis in agriculture is shifted from production to economy.
3. City wages will lag behind prices.
4. Wages of farm labor will be a compromise between prices of farm products and wages of city labor. The closeness with which farm wages approach city wages depends on the nearness of the cities. For example in 1922 wages of male farm labor by the month with board when compared with pre-war as 100 were 162 in New York and 129 in North Dakota. Farm products were higher in New York and earnings of New York factory workers were 197 compared with June, 1914. The importance of saving labor will require more attention than formerly. For some men this means tractors, trucks, milking machines, better farm and barn arrangement, driving more horses per man—always remembering No. 1. The importance of planning work ahead, of repairing tools in winter, and the like will be greater than usual.
5. The incentive to agricultural development that came from rising land prices will be lost for a time.
6. Prices of industrial products will lag, because when they cannot be sold on the wage basis of the time, production will stop.
7. Those who are engaged in personal industries such as farming will work harder and increase the output per worker,

because no matter how low the prices, the more the individual has to sell the more he gets. The farmer is a "piece worker."

8. Because of Nos. 6 and 7 the general tendency will be for manufactured goods to be at a premium as compared with farm products. At times a reversal may occur but the average is likely to be in favor of manufactured goods.

9. Prices paid to farmers will be low relative to retail prices. These differences will probably not average so extreme as at present. The advantages of raising home food and feed will be greater than normal, as will the advantages for those farmers who can cut around some of the channels of trade by retailing, reaching wholesale dealers, and the like.

10. Taxes will lag and, therefore, will be high.

11. Payments of interest and principal will lag and be high. Those debts that cannot be paid should be converted to long-time obligations such as Land Bank mortgages.

12. Fluctuations will be greater than normal. Unusually bad periods of unemployment will occur. The first bad one will probably come when city real estate prices are adjusted. Because of low profits and erratic prices, farmers will be more than usually inclined to rush from producing the low-priced to producing the high-priced things. The losses from this will be more than normal. The profits from buying the low-priced things before an up-swing in the price of some product will be more than usual. Practically every year, some products will be high. It is the average of agriculture that will be low.

13. The average buying power of labor will be high and the choicer kinds and grades of food will be high. The demand for clothing and homes will average high. But during the periods of unemployment these demands will be violently reversed.

14. Large farms have less advantage than formerly, but whatever the labor force, the business should be up to the full capacity of the force.

15. Large average yields should be obtained by ceasing to operate the poor land rather than by expensive methods. The losses from using the poor land will be greater than usual. More land may be used for pasture or the poorest may be left to grow Nature's green manure crops. Farmers on poor land will do more outside work for wages.



16. The wise procedure for farmers of different ages, for those with different amounts of family labor, and particularly for those with different amounts of debts will differ decidedly. The man who is out of debt may continue to improve his farm and operate much as usual, expecting that the day will come when he will be rewarded. There will be many opportunities to buy farms, stock, etc., at very low prices. Such opportunities for farmers who are out of debt will be very good. The man who is heavily in debt must give primary consideration to the date when the reward for each expenditure will come. Few rules can be made that are desirable for universal application, except to be more than usually alert for both opportunities and dangers. Some one will own all the farms when the tide turns and the property will then be valuable.

17. Cooperative associations will be subjected to severe strain both because of business conditions and because of general farm discontent. They should be careful about reserves.

18. The most striking influence of a period of depression and erratic price relationships is in a redistribution of wealth. Property is taken from those who have earned it and given to those who have not. When a young man puts his lifetime earnings into the purchase of a farm and loses the farm because of a change in the value of money, the farm is still there, but there is a new owner. When prices again become adjusted the new owner profits by the change.

19. The effects of such a period are much more severe on individual welfare than on the welfare of agriculture as an industry. But while the industry is affected more slowly it is affected just as surely. The most serious result is the disrepute into which an industry falls when it so universally bankrupts the young men who enter it with debts. The expansion of agriculture is being checked. When the world again becomes settled and again accumulates wealth enough to require an expansion of agriculture, it is to be expected that there will be a long period of high-cost-of-living until agriculture again gets started.

The present discrepancy between farm prices and prices of manufactured goods may be expected to continue for some years but normal relationships will return in time. The return will be by the usual price pulsations—each farm product

continuing to oscillate about the agricultural price level, and the agricultural price level continuing to oscillate about a base that will approach and finally fluctuate about the general price level.

If the general level of agricultural prices is correctly forecast, there would remain the problem of forecasting individual farm products. Unless some new factor has appeared, it is to be expected that individual farm products will continue as in the past to oscillate about the general level of agricultural prices. Only the exceptions need attention.

During a period of declining prices clothing and the choicer types of food are likely to average somewhat better than the general agricultural price level but the average is likely to be made up of very erratic fluctuations.

Because of the cotton boll-weevil, the production of cotton is made relatively more expensive than formerly when compared with other farm products. The variability of yields is also increased. At the same time the unstable industrial conditions increase the variability of demand. It is, therefore, to be expected that the price of cotton will be much more variable than formerly and that it will average higher than formerly unless economical control methods are found. The writer sees no justification for expecting the present extreme spread between the price of cotton and the price of other farm products to continue. The damage by the boll-weevil is probably greater than usual. The demand is probably higher than can be expected to continue. The profits to farmers are causing expansion of the cotton acreage in both old and new territory and are stimulating the study of control measure.

Wool is in high demand because of the wave of full employment. There is no reason for expecting the price to remain so high. The price of wool may, however, be expected to remain as much above other farm products as the tariff is higher than formerly.

Flax may be kept high by means of a tariff.

Horses are now at the bottom of the cycle of over-production (October price index 58). Since the complete cycle lasts about 20 years, it is to be expected that horses will be in fair demand in about five years and be high in ten years. The farmer who is buying horses will do well to buy young ones. They may live to be valuable. In regions adapted to horse

breeding, good young mares are best. Many old horses should be killed each fall.

Beef cattle are at the bottom of a cycle of over-production (October price index 103). Since the cycle is about 14 years long, it is to be expected that beef cattle prices will have a fair ratio to other products in about 3 to 4 years and that they will be high in about 7 years.

Hogs are at the bottom of a cycle of over-production (October index 98). Since the complete cycle usually lasts about 60 months it is to be expected that hogs will gradually improve in price and that they will be high relative to other commodities in approximately 2 years.

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DISCUSSION BY FREDERICK V. WAUGH  
NEW JERSEY DEPARTMENT OF AGRICULTURE

My work with the New Jersey Department of Agriculture has kept me in constant touch with the shippers and dealers in that state. I find that many of them are very interested in the work being done in forecasting prices of farm products. I know that these men will appreciate the report just read by Doctor Warren.

I find, however, that few of the men who are actually handling farm products are able to follow all of the reasoning and the statistical methods employed in arriving at some of the forecasts. For that reason, although they are benefited by the forecast of the general trend of prices, they are unable to adjust the forecasts to meet their particular needs. It seems to me, then, that one of our biggest problems—at least in the New Jersey Department of Agriculture—is to make these forecasts more easily understandable and usable.

In order to get this problem clearly in mind, it might be useful for us to spend a few minutes examining a specific forecast. Then, with this case as an illustration we can see more clearly the possible value of such work to shippers and dealers, and we can also discuss more intelligently the methods of presenting the forecast so that those interested may get the most value from them.

On the first of August, of this year, I handed to Chief Clark of the Bureau of Markets, a prediction of this season's prices of New Jersey potatoes. This prediction was figured by the use of a formula given in the New Jersey Department of Agriculture Bulletin No. 66. The formula estimated the average wholesale price of New Jersey Cobblers in New York for the season—July 1 to November 30—as \$2.74 per 150-pound sack. The actual average price was \$2.79. The error in the prediction was five cents a sack, or two cents a bushel.

At the time the forecast was made, New Jersey Cobblers had been selling from \$4.00 to \$4.50 per sack, and a number of people were looking for a good market all the season. The southern crop had been light, and when New Jersey began to ship in August most of the Virginia crop had been cleaned up. This left New Jersey practically in control of the eastern markets, and New Jersey had only about one-third of a normal crop. The July estimate of potato production showed that the total crop in the country would probably be considerably smaller than last year. All these facts tended to create a feeling of optimism. Although the early market was good, many shippers expected it to be as good or better later in the season, and instead of everyone taking advantage of the high prices in July and August, a number of shippers waited with the result that they received a much smaller price during the last of the season.

The first week in September, when northern potatoes began to come on the market, New Jersey Cobblers suffered a drop from \$4.00 to \$2.75. From then on the market was weak, and although it has rallied occasionally, it has shown a decided downward tendency all through the season.

Now, it is very plain that this forecast could have been of great value to the New Jersey farmers and shippers. Even if there had been considerable error in the estimate of the average price, still the prediction of a falling market would have helped them to adopt a better marketing policy. Farmers would have dug their potatoes and sold them as early as possible, and dealers would have bought in small quantities and moved their stocks as quickly as possible.

But the forecast was never published. The reason was that the Bureau could not very well send out a report which would have a tendency to depress prices, and that is what

would undoubtedly happen if such a report were accepted as true by the shippers and dealers. So what has happened this season is this: we had in the office a forecast of potato prices which has proved to be quite accurate, yet the information was not made available to those interested. There was a circular distributed which explained the method of making the forecast, and which gave a formula by which the average man could easily make a forecast of prices for himself. Yet, I doubt if very many men who were actually buying or selling potatoes took the time to work it out. Most of them looked at it as an abstract idea rather than a practical, workable method of discovering the future. Most of the comments I heard on the bulletin were from college professors. A few large dealers wrote in about it, and I know that at least one of them worked out the formula to see what it would show for this season, but there was very little response from the growers.

Now, it seems to me that if we are going to get very far with these forecasts of prices we have got to get them into some sort of shape so they will be understood and used by the men in the business, and after studying over the situation this year, I think there are two ways in which this could be done. The first is to have a forecast published by the State Departments of Agriculture or by the colleges. The second is to make a simple method of forecasting which is easily workable and yet will be accurate enough to win the confidence of the potato growers and dealers. I have already mentioned the greatest drawback to this method, that the Department is likely to hesitate at sending out a report which is pessimistic, and which would have a tendency to depress the market. The second method assumes no responsibility, but only explains to everyone the method by which he can make his own predictions. The disadvantage of this method is that only a few men will work it out. Still, I believe that if we can establish certain methods and formulae which will give good results every year, they will gain the confidence of a number of men in the business and will be used more and more as time goes on.

At least four or five men are now working on price forecasts of potatoes. It seems to me very desirable to correlate these studies, and to put them all on the same basis, but



first we must agree on the primary aim of price forecasting, and before we can agree on the aim we must agree on the proper way to use the forecasts. There are two very distinct aims in the forecasts now being worked out. The first is to make a prediction which will be as accurate as possible. This requires us to establish a formula which will use a large number of factors, and to look for new statistical methods which will enable us to explain fully prices in the past, and thus get a prediction which approaches absolute accuracy.

The second aim is to explain as well as possible the prices in the past by using only a few of the more important factors and the easier statistical methods, in order to get a simple method of forecasting which will be understood, and possibly used by a larger number of people.

## EFFECT OF BUSINESS UPON AGRICULTURE

ROGER W. BABSON

PRESIDENT, BABSON'S STATISTICAL ORGANIZATION

I realize that the development of this subject takes us into a field which has heretofore been practically uncultivated. Not that there is no realization that the pursuits of industry, as the term is generally understood, have an effect on agriculture. There is a very vital connection. In reviewing this matter we have one extreme, consisting of such authorities as Professor Moore, who in his exhaustive treatise on "Economic Cycles" tells us:

"When the lagging cycles of general prices were plotted and their graph superimposed upon the graph of the cycles in the yield per acre of the crops, the exact curves were found to present a degree of congruence so close as to justify our working theory that *the fundamental cause of the cycles of prices is the rhythmical movement in the yield per acre of the crops*. The cycles in the yield per acre of crops are followed at an interval of about two years by the cycles in the activity of industry and of the volume of trade, and at an interval of about four years in the cycles of prices."

On the other hand, if we recall the fact that the American farmer has hardly ever known a more rigorous period than during the great business depression of 1893 to 1897, and then remember the wonderful industrial advances of the succeeding period—the great construction projects, the great commercial progress, the great consolidations, the beginning of the "age of steel,"—which seemed to carry the agriculturalist out of the abyss to prosperity, we again are led to believe that business has a very vital effect on farming projects. As one has said, the sight in 1899 of every barn in Nebraska and Kansas beaming in a new coat of paint, was a revelation to those "who knew the great unpainted West of 1896 and 1897, with its bare, weather stained houses, its dilapidated barns, its farm machinery standing out in the rain, its ruinous boom towns, its discontented inhabitants, crying out for legislation to relieve their distress."

No doubt there is in many ways an interrelation between business and agricultural phenomena, but to analyze the situation in too broad a manner, brings to mind the time old discussion—"which was first, the hen or the egg?"

The changes that this country has witnessed, even in the last one hundred years, in the matter of industrial and agricultural life is astounding. It is said that in 1800 over 90 per cent of the population was more or less engaged in agricultural occupations. Today the percentage is far less—probably less than half of the total.

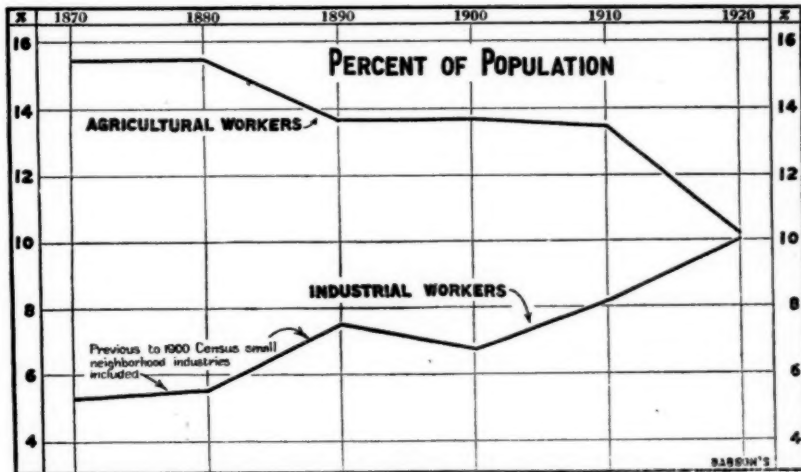
Purely business enterprises consist of taking raw materials, to which the farm contributes a very large quota, manufacturing them into finished products, and distributing them to the ultimate consumer. This involves, of course, transportation of the commodities in their various stages of completion, and the financing of the many steps incidental to their entire process from their original state to their final destination. To this should be added the various activities connected with the housing and caring for the populations engaged in these pursuits, generally congregated in the urban centres.

Gradually the tendency has been for capital and creative energy to flow into the strictly industrial pursuits rather than to land operations. This is very likely due to the fact that there is better opportunity for more rapid turnover of goods and capital among the industrial occupations than agriculture affords. The very derivation of the word, "busy-ness," suggests the measuring of wits, the play of the trading instinct and the development of activities which are in many instances sufficient to draw great economic energy away from farming to other vocations.

There are certain definite trends toward industrial life and away from the maximum of agriculture in every new country. In the case of the United States this was more or less prominent throughout the nineteenth century, but very markedly so after the Civil War. Inventions and the general march of industrial progress since 1870 have caused a complete transformation. An analysis of the Census figures for this period shows that the percentage of industrial population to the total has steadily advanced, while the agricultural percentage has steadily declined.

This fact is well illustrated by the diagram on the following page, showing from the Census figures the percentage of workers engaged in the respective lines. The extreme commercial activity instigated by the war has especially intensified this movement during the last decade. All this has taken

place, notwithstanding that the acreage under cultivation has continually advanced. From three hundred million acres in 1850 it has expanded to about one billion acres at the present time. The extreme trade activity from 1915 to 1920 drew agricultural workers by the thousands to the urban centers. When wages advance by leaps and bounds as during the war, our rural population suffers exceedingly. In fact, our entire farming operations were then put to a decided disadvantage. The case would have been much more serious had it not been for the fact that food was needed in enormous quantities as well, thus allowing price advances by the farmer which compensated in part.



A study of all the factors in the situation, including the immigration question, suggests that in the future whenever there is an era of over-expansion, such as in 1906, 1915-20, or even 1909, workers will move from the fields to the more attractive industrial localities. At such times, under the stress of trade activity, along with the demand for materials, machinery and plants, comes a demand for factory, mercantile and clerical workers.

During these periods commodity prices rapidly rise, especially in the industrial field. This means that the cost of living is urged forward and with this advance the trend of wages in such centres moves inevitably upward. There is the attendant shortage of labor, and the agriculturalist is pressed

thereby in two distinct ways. In the first place, he finds it difficult to obtain sufficient labor to allow him to operate satisfactorily. The higher wage scales and the city life with its amusement and luxuries, give an irresistible appeal to the worker.

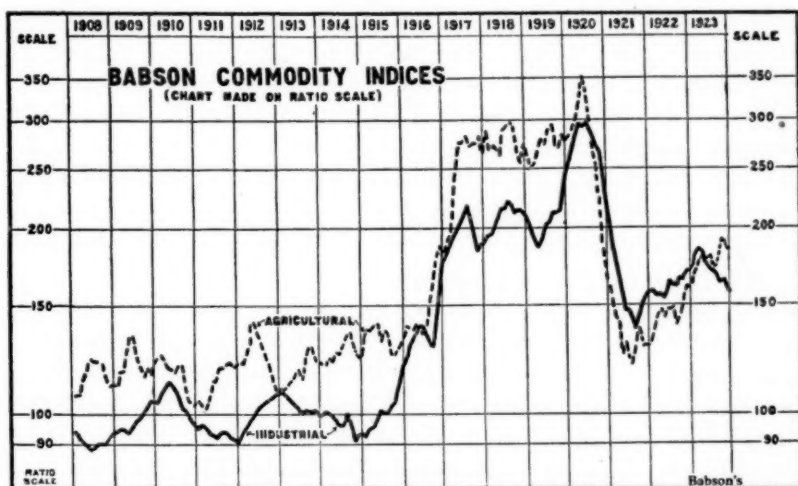
In the second place, the farmer is hard put because he cannot afford to pay the higher wages he must pay even those inferior workers whom he is able to secure. In order to get any help at any price, he is obliged to raise his offerings to a point which means losses to him. If, at the same time, he could increase his own prices correspondingly—cotton, grains, fruit, meat products, or whatever the case may be—it would not be so serious, but his acreage is fairly constant and his yield governed by another set of factors. The same is true in part of his markets.

In this connection, it is interesting to note the relative fluctuations of general prices and farm products. Strange to say, these movements have in the past been such that the rural sections have often been at a distinct disadvantage. Take the case of wheat. An inspection of a chart of industrial prices, among which are included hides and leather, paper, print cloth, nonferrous metals, coal, building materials, rubber, wool, petroleum, iron and lead, which my organization has carefully studied, shows, it is true, *general* trends over periods of twenty years which agree with the record of wheat prices, and in fact other farm commodities.

On the other hand, when one considers the periods of over-expansion and deflation consisting of two to five years, which are the periods in which most people are interested, there is a different story. A glance at a diagram of wheat prices and the industrial price index will show a repeated variation of trends. In fact, many times when the industrial index is moving upward, thus creating conditions which mean higher prices for clothing, agricultural equipment and other things the farmer must buy, the price of wheat moves in an opposite direction. Such phenomena are the things which so often give rise to complaint among the agricultural localities. In the case of every item of farm produce this divergence may not be so striking, but the fact remains, if we consider carefully prepared agricultural and industrial indices over the past fifteen years, there are some remarkable features which appear in this connection.



The price of agricultural commodities, under usual conditions, responds to two elements, (1) seasonal and (2) fundamental. The price movement is dependent chiefly upon demand and supply in the crop field alone, primarily because the output of agricultural products have a certain phase which is not governed by human efforts. A certain acreage is planted and only limited acreage abandoned. The final yield per acre and the total crop depend almost entirely upon the seasonal elements, and the effect of weather and insects, although the question of whether business is sweeping upward or downward of course has some effect.



At the end of the season, a certain amount has been produced. This may be large or small, but one point is certain, the quantity of this product cannot be increased or decreased until another season. The recent war period was an exception in price movements, as heavy foreign demand simultaneously occurred for both industrial and farm products. Looking back over other periods of expansion and deflation, however, it is not evident that agricultural products always respond. For example, in 1908 and 1909 business and industrial commodities moved upward, but as farm products exceeded the demand, agricultural prices moved sidewise. A similar condition existed in 1911 and 1912.

Speaking of prices, the farmer is in quite a different position from the captain of industry. A *farmer* holds his production approximately steady and lets his prices fluctuate. A *manufacturer* lets his production fluctuate more or less according to prices. When it comes to actual performance, farmers do not curtail to any extent. They harvest about the same acreage from year to year. When a manufacturer finds that he cannot get an adequate price for his product, he does what he can to curtail production. If prices still remain inadequate, he goes a step farther and closes down his factory altogether. Moreover, he stays shut down until prices rise to an adequate level.

Notice what the manufacturer has accomplished by this policy. He has evaded losses himself and may have in part passed the penalty to the farmer, who is temporarily deprived of a portion of his market, by reason of the fact that dullness in the business centers tends to curtail purchase of raw materials. This is noticeably true of such articles as cotton, hides, wool, etc.

The history of business depressions shows that the farmer is unable to adjust his production to the changing conditions. In the major business depression of 1873 to 1876 crop prices registered a marked decline. There is no evidence to show that the farmer was able to meet this decline by curtailing his production. Wheat yields for these years from 1873 to 1876, years of rapidly falling wheat prices, were larger by 22 per cent than the average of the preceding five years of prosperous conditions. In this depression of 1873 to 1876 cotton prices also registered a sensational decline, but the yield of cotton was 28 per cent greater thru these years of declining prices than it had been in the preceding five years of relative prosperity. The cotton farmers could not adjust the output to their market. This, of course, was only to be expected, as more and more acreage was being brought under cultivation as the country developed.

The story of the 1884-1887 business depression reveals the same lack of flexibility of the farmer in adjusting his product to declining prices and slack demand. Wheat sold on an average of \$1.17 per bushel in 1883, but by 1887 it had dropped to 88c a bushel. Let us see what happened to wheat production during this great decline in prices. The

yield of wheat for these four years of depression averaged 445,856,000 bushels, which is approximately equal to the average of the five years preceding the depression. In 1883 cotton sold at 11½c a pound on the average. In 1886 this had fallen to 9c a pound. The cotton yield, however, for 1884 through 1887 averaged about 6 per cent greater than in the years just preceding the depression.

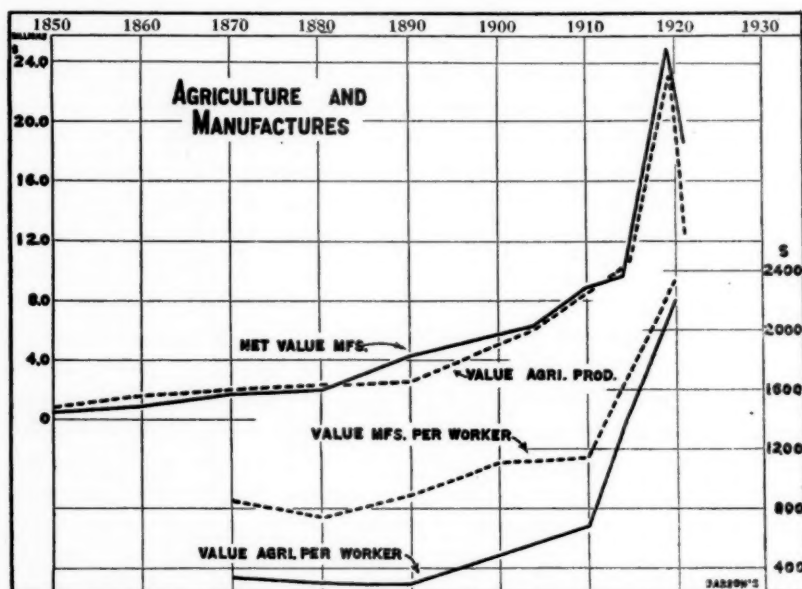
Again, note a further disadvantage under which the agriculturalist labors. The manufacturer, generally speaking, does practically no manual work himself, but hires it done by others. The farmer generally speaking, does a large part of the manual work himself and, in comparison with an industrial enterprise, makes comparatively little use of hired labor. The manufacturer buys his raw materials from others. The farmer buys raw materials only to a small extent, compared with business concerns. He cannot discharge his working force. He, himself, is the working force. He cannot, to any great extent, discontinue purchases of raw materials, because he is essentially a producer rather than a fabricator.

Another element of risk is introduced by the long period of the process. A shoe manufacturer can put his product on the market within a few weeks from the time the order is set in motion in his shop. But between plowing and harvesting, long months must intervene with no opportunity for varying the output. Manufacturers can ease their products into the market gradually, and at their own discretion. Farmers dump their annual output on the market, all together, all at once, and at a fixed date. This causes prices of farm products to sag during the selling season, during the very period when—from the farmers' standpoint—prices should be at their best.

There is a rather striking relation between the value of manufactured products and the value of agricultural products. Let us define the value of manufactured products as the *net* value, that is, the gross value less the cost of raw materials. Let us further define agricultural products as the value of crops plus the value of livestock products. It is quite a remarkable thing that if you chart these two sets of statistics over as long a period as figures are available you will find that they run practically together. They are

not merely similar in trend, but actually about equal in amount.

If there is any increase in the farmer's income, this tends to draw men from the factories to the farms. On the other hand, when there is a great increase in the industrial wage worker's income, this tends to draw men from the farms to the factories. In fact, there is often witnessed this shifting of human effort. Whether this balance which has continued so long will continue in the future economic record of the country, of course, remains to be seen.



I have mentioned the tendency of capital to flow more readily into business than into farm financing. In forming the banking system, business needs were given first consideration. This was not so much of a hardship to the agriculturists when times were reasonably good. Since the depression of 1921, however, there has been more and more demand for a system which will specifically fit the farmers' needs. Whether or not that system was provided in the Rural Credits Act which was passed last spring is a disputed question.

Whatever systems are devised, however, the rate of interest which the farmers pay must always depend very

largely upon the money market as a whole. Money has a tendency to be a unit the world over and in all lines of trade. Money rates, therefore, are governed primarily by general business conditions. A diagram of this at once shows the close relationship between business fluctuations and the money market. For example, the rate of commercial paper (4-6 month bills) tends to advance more or less regularly throughout the periods of business overexpansion, reaches a peak at about the time business reaches the average level on its way downward; then drops very abruptly. The lowest money rates are usually found during the middle and the latter parts of the depression periods. In a general way, interest rates on long-term capital—that is, bond yields, follow a similar trend.

It is not surprising that the rates on farm mortgages should be governed more by the condition of business than by the condition of agriculture. In my office is plotted the trend of rates on high grade mortgages. These are taken from reports of several of the leading life insurance companies which invest heavily in farm mortgage securities.

It is only natural that rates on the farm issues should be subject to less fluctuation than securities traded in the open market. However, when the money market as a whole rises, the interest rates on farm securities likewise tend to strengthen and rates which farmers pay to the banks on short term loans follow the same trend. The diagram above referred to very clearly shows the effect of business on these rates.

As to the amount of farm mortgages during the different periods, there is no doubt that in the past grave errors in land speculation have been brought about during the eras of over-expansion in this country. How much of this has been due to industrial activity cannot be definitely determined, but business expansion undoubtedly has had a great influence on the speculative phases of agricultural life.

I have been very much interested in studying the geographical movements during periods of over-expansion and periods of depression. To borrow a phrase from the Weather Bureau, we might refer to these as economic "HIGHS" and "LOWS." Statistics show that when a pe-



riod of over-expansion, (an economic "High") or a period of depression (an economic "Low") hits the Nation, it does not cover the entire country simultaneously and uniformly. On the contrary, such a movement usually appears first in the manufacturing centers of the Northeast and thence spreads to the regions of raw materials in the West and South.

In 1920, to cite a specific example, certain industries in the Northeast showed signs of uncertainty in May and April, or even earlier. Then the area of depression swept toward the South and West. By June and July it had spread from the manufacturing centers to the raw material regions. The general direction of the movement continued, and it was not until September or October that business interests on the Pacific Coast could really say that they were feeling the effects of the depression. In connection with this, it is interesting to note that in certain of the "financial panics" of the past, the great central agricultural areas scarcely knew about them at all!

If we enter the international field, which is really the field the farmer, by all odds, is most concerned with, we encounter a very direct influence upon him by business activities. While it is true that agricultural conditions the world over are his principal concern, it is also true that healthy or unhealthy business abroad has a great effect on his prosperity. Take the case of cotton, for instance. Let England's business be demoralized and her factory operation curtailed; all our southern localities at once feel the influence of the poorer markets and share in the depression. On the other hand, let the reverse conditions prevail and our cotton districts are vastly benefited. As far as price is concerned, the present period with its short cotton crop and active speculation, may be somewhat of an exception.

The balance of trade and similar factors depend on the condition of both business at home and business abroad, and the balance of trade has a direct bearing on the export situation. Nearly all agree that at the present time what the farmer needs is a larger and better market. With European business in a chaotic condition, with a vast preponderance of gold in our treasuries and more coming every month, it is not hard to see the effect on our exports, of which agricultural commodities form so large a proportion.

In reviewing economic history from an agricultural standpoint it is absolutely impossible to escape the beneficial effects of industry upon the rural areas. The last one hundred years have witnessed an amazing development along this line. The invention of the cotton gin, the reaper, the seeder, the tractor and other similar implements, has revolutionized agriculture. A study of governmental figures shows that the value of farm products per worker involved have shown a wonderful increase since 1870, even surpassing the increase in value of manufactures per worker.

The automobile and motor truck business has also practically revolutionized this vocation, bringing the markets for the farmer's products near to him, and effecting an almost incalculable saving in time and labor. To this should be added the business of constructing the thousands of miles of highway, to which various industries, including cement, clay products, and allied lines, contribute heavily.

For years the railroads have occupied a foremost place in our country's activities. To them, a large number of subordinate businesses contribute their quota. The steel companies, the equipment companies, the lumber trade, and host of other lines, combine together to stretch the railroads over vast area of otherwise inaccessible farm property. In the old days the very fact that a railway was projected in a new territory was sufficient to send farm values skyward. To a less extent, but in no inconsiderable manner, have the telephone and telegraph industries contributed their share to the welfare of the country districts.

Some thirty or forty years ago a remarkable development began in the electrical field. The process is by no means complete, but what transformations have been wrought in the shape of the interurban lines, and in the bringing to the farmer's very door all manner of power and lighting devices, even to a complete electric set-up for farms miles away from the usual centers of industry! The radio business in the last few years has grown to astonishing proportions. To no one is it more important or gratifying than to the isolated country dweller.

Along the same line are the methods suggested to diversify the crops and bring the markets near to the farm. Professor Friday's ideas in this particular are exceedingly worth while. The farmers of Michigan, for example, if they accept Pro-

fessor Friday's program, will not worry so much about the export trade, but rather will devote their energies to raising food for Michigan cities. A way has been suggested in which New England agriculture can be restored, that is, by catering to the food wants of Boston and other New England cities instead of reaching generally for foreign or far-away domestic markets.

Not so very long ago the thought that Michigan farmers could find a market in Michigan would have been absurd, but the industrial development of the state has caused cities to spring up everywhere. More and more, as business continues to develop, farmers will be benefited by new markets being created near at hand. In fact, it may not be too much to say that the market situation with respect to agricultural products may thus be entirely changed by the continued tendency of manufacturing to build up these new locations!

And so the story might be continued, and the end is not yet. Industry is continually operating to place agriculture on a more and more efficient plane. What a colossal business is that of transporting by land and sea the products of the farms and of handling, of buying and selling, of distributing to the ultimate consumer the fruits of the soil. In the coming years monumental progress will be made in this distribution process. Moreover, we must not forget the great advantage to the farmer of the example set by the industrialist in methods of efficiency, cooperation and systematization. He is only just now awaking to the possibilities in this direction, but he is coming fast, and these benefits to agriculture, already large, will assume mammoth proportions in the near future.

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#### DISCUSSION BY E. H. THOMPSON,

PRESIDENT, FEDERAL LAND BANK, SPRINGFIELD, MASS.

This question is usually discussed from the other angle; namely, the effect of agriculture on business. While less investigation has been made with respect to the effect of industry on agriculture, it is a subject of equal importance and demands our closest consideration.

Industrial development directly affects the farmer by competing for labor. If the prices for farm products are relatively

less than the prices for manufactured products, the farmer is at a disadvantage. At such times, marginal farms are unworked in the agricultural districts adjacent to industrial centers. Good farms are not deserted but are either operated at low ebb by the farmer and his family or, if they are operated to full capacity, it is at a low profit by reason of high labor costs.

Cheap food and high wages in the building trades and in industry cause a cityward movement. An illustration of this came to my attention just recently.

Fair quality general farming land, within a radius of twelve to fifteen miles from Buffalo, can be readily rented for \$1.00 per acre. This same land is selling at from \$150 to \$200 per acre. Such farms possess a residence value in addition to their agricultural value, their agricultural value depending on whether industry is thriving or in a depression.

Within a radius of fifteen to twenty miles of Binghamton and Endicott, New York, there are areas of rather poor farming lands. Many of these farms are equipped with good buildings. These farms, in the past year, have sold for more than their farm value by reason of their residence value. High rents and high building costs in the industrial centers have been an incentive for the workers to go out and buy these farms at a price less than they could build a home in town. Ordinarily, many of these farms would be deserted because it would not pay to work them. Under present conditions, however, the buildings are occupied and the old folks and children carry on a small amount of farming.

Good roads and the automobile have had a tremendous effect in this direction. Prior to the coming of the automobile, the driving limit with horse and buggy was not over five or six miles. Today, with the hard macadam roads and automobiles the driving limit is from fifteen to twenty-five miles. The macadam road, the Ford automobile, the eight-hour day and the pay envelope on Saturday noon is a quicker and more deadly poison to farming operations in the New England States than the competition from other areas has ever been.

It has never paid to work marginal farms with hired labor. They have always been worked with family labor. With the development of industry, however, in these farming districts the family labor now works in the factory and the old people

and the children take care of the farm. In periods of industrial depression these farms will be worked more intensively and to a greater degree than when industry is thriving.

In districts remote from industrial centers the effect has not been the same. It is my observation in the New England States that farm labor does not shift long distances. For instance, in Aroostook County, Maine, where agriculture is highly developed and of considerable proportions, the railroads and the lumber interests are practically the only competitors for hired labor. The greater development of industrial centers remote from Aroostook County the more demand there is for the products of that County and the more prosperous it becomes. The same is true of northern Vermont, New Hampshire and northern New York. Marginal farms in these remote districts are not abandoned because of the pull from industry but rather from competition of the better land.

The selling price per acre of the same quality of land is frequently higher in well established yet remote districts than in areas nearer industry except when it comes to land used for intensive agriculture. In other words, land suitable for the growing of hay will sell for more per acre in northern New York, Vermont, New Hampshire and Maine than the same quality land used for the same purpose within a radius of twenty-five miles of large industrial cities in southern New England. Industrial development widens the gap in price between the real good farm lands and the marginal land.

The concentration of industry and its development is causing a concentration of agricultural production to areas best suited for those products and, in the long run, a rise in land values in those districts. Fewer people are needed in agriculture leaving more to be employed in industry. Those remaining are concentrating their efforts in quantity production.

This increasing concentration of agriculture is vitally related to the question of transportation and freight rates. The farm is no longer a self-sufficing industry but rather has the characteristics of a manufacturing plant.

Looking at this from the standpoint of national welfare, there is nothing alarming. With increased efficiency with respect to crop yields, animal production and the individual worker, less farmers are needed and should occasion arise, as happened at the time of the World War, with the enormous latent resources there is little danger of any food shortage.



If any reclamation is necessary it is far better to reclaim many of these farms in our eastern States by the simple expenditure of from eight to twelve dollars per acre for lime and thereby remove them from the marginal class for nearly a generation instead of expending fifty to one hundred dollars per acre to reclaim remote areas.

There is still another and larger phase of this question which has developed in the last twenty years. We have always been primarily an agricultural Nation, exporting a surplus of agricultural products. Our foreign buyers partly paid for this food by sending us manufactured products. Of late years this condition has changed. The market for food products since the war has declined as our European neighbors cannot buy unless they can pay in manufactured products, which we will not take.

This may eventually have a very far reaching effect in removing the demand for our surplus of all kinds of agricultural products.

In brief, while industrial development provides an increasing market for farm products, it likewise is a direct competitor for labor. This competition decreases local agricultural production and stimulates it in more remote and favored sections. It makes for concentration which in turn due to the far reaching and wide variation in weather conditions, will make for more violent fluctuations both in yield and price of our important farm products.

The development of industry, including transportation and mining together with their attendant labor organizations, have, in my judgment, been a most important factor in placing the farmer at a temporary disadvantage in the general price level. Agriculture was in no position to prevent deflation while industry resisted through better organization.

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#### DISCUSSION BY A. B. GENUNG

BUREAU OF AGRICULTURAL ECONOMICS, U. S. DEPARTMENT OF  
AGRICULTURE

Discussion of this subject would hardly be complete without brief reference to that realm where angels fear to tread—namely, the future.

We have just witnessed two years of almost complete domination of the economic situation by the urban community.

Following the memorable price plunge in 1920, and the precedence of even a normal foreign outlet, agriculture was left practically at the mercy of the domestic market. This, of course, on the heels of wartime expansion of agricultural production.

Unlike the open country, the cities arrived at the post-war period with a considerably increased population and with an immense accumulation of fluid capital. After a temporary pause in 1921, they launched into nation-wide activity based upon replenishment of houses, railway equipment, automobiles, textiles, and other basic equipment. This broadened into one of the greatest business booms the country has ever seen. Certain lines of it are still in progress.

This business boom of the past two years has been exclusively an urban, industrial affair. It has had a sort of double-barreled effect on agriculture—drawing away its labor, raising wages, and maintaining high prices on the manufactured articles which farmers have to buy, at the same time as it has furnished a strong domestic market for the fiber crops and for the finer quality foods.

The deeper effect has been a readjustment in agricultural production which is still in progress and which may hold certain developments suggestive of the trend in time to come.

The fiber crops have experienced relatively high prices. This is due, in part, to reductions by reason of the boll weevil and handicaps in the sheep industry, but a major cause is to be found on the demand side. Demand for textiles is cumulative.

Wheat, our single great money crop, sold to world market, is finding no alternative to absolute curtailment of production.

The great feed crops, corn, oats, barley, and hay, almost immediately began conversion into livestock, especially swine and dairy cattle. They have been thus worked over into young animals until the corn surplus has entirely disappeared and the dairy industry is still making noble effort to get outside the surplus hay. The liquidation in hogs now going on is held up by some persons as evidence of farmers' way of overdoing the market; but it may also be viewed as a most skillful effort by the Corn Belt to carry along and work off gradually an almost calamitous store of grain.

Is it possible that in these various readjustments we are catching a glimpse of the transition which has ultimately overtaken every other industrial country? Two generations ago few persons were discussing the "effect of business on agriculture." The subject was then worded the other way around. Is this post-war period, with agriculture thrown back heavily upon the domestic market, giving us a momentary, even though distorted, glimpse at the chart by which some future course may be steered?

With the United States assuming position in world markets as the consumptive unit of greatest single purchasing power, will wheat, for example, have to retire permanently behind a tariff high enough to wall us off from the virgin Canadian prairies? How will the Corn Belt react to a corn-hog ratio predicated directly upon the indexes of bank clearings, wages, and so on? Shall we swing to a larger relative production of milk, fresh eggs, and other more intensive products? What will happen in a Cotton Belt whose cotton prices no less than its labor supply are fixed by American industrial conditions? Will our sugar and wool be maintained against the world's natural surplus areas thereof? Would farmers conceivably have to contend with a permanently widened disparity between their own and urban net returns? In short, what would be the trend of readjustment if the industrial animal permanently wagged an agricultural tail?

The thing which gives point to all this is that we look ahead only about 10 years to a nation of 125 million people which will include presumably 90 million non-farming population. In the last fiscal year our imports of agricultural products exceeded exports (in dollar values) for the first time, a fact primarily due to increased imports. It may be that it is already time to be thinking of an agriculture whose adjustment to domestic business will be its main fixed objective and not a passing condition. What it means to give thought *after* the event is neatly illustrated by the recent British election campaign, wherein a plank of one major party promised a direct cash subsidy to farmers of so much for every acre cultivated. It fell on ears long since deaf.

## DISCUSSION BY G. C. HAAS

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I wish to thank Mr. Thompson and Mr. Genung for leaving for me untouched the discussion of "which was first, the hen or the egg?" The subject of Mr. Babson's paper is, however, closely analogous to this question. The relationship is more apparent if we change the wording so as to make the question read, "Which was first, the agricultural depression or the business depression?"

It seems to me we are again back to the old subject of the business cycle with the important question,—do agricultural conditions constitute one of the factors which lead to the ups and downs in general business? If it is true that agricultural conditions constitute a factor in the business cycle, then at one phase agricultural conditions have a favorable effect on business, and following, business has a favorable effect on agriculture. Likewise, in another phase of the cycle, agricultural conditions will have an unfavorable effect on business, and following, business will have an unfavorable effect on agriculture and so on.

I shall attempt to give very briefly an explanation of the business cycle which is not my own\* but which is of interest in that agricultural conditions form a part of the analysis.

I will trace in a very brief manner the sequence of events in one complete business cycle, starting as a matter of convenience with the depth of a depression and passing through the revival, the boom and back again to a depression. The influences bearing at the different phases of the cycle will be mentioned, but nevertheless recognizing that all of the influences mentioned need not of necessity be present in any particular cycle. The brevity of the statement naturally does not lend to strict accuracy.

Starting then at the depth of depression, we find that aggregate of industrial production begins to increase under the following influences: (1) a general increase in the physical productivity of effort due to the adoption of improved methods, etc., under the stimulus of depression: (2) an increase, due to an increased bounty of nature, in the exchange value of industrial products against the prod-

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\*D. H. Robertson, "Industrial Fluctuations."

ucts of agriculture, and (3) an increase in the expected future productivity of constructional goods, due either (a) to the wearing out of an exceptionally large number of existing instruments, (b) to the discovery of possibilities in a new country, or (c) to some physical or legal invention. Production is still further increased by (4) the expansion, whether owing to an increase of confidence or to increased supplies of gold, of the volume of credit currency, which induces each producer to expect a rise in the exchange value of his own product.

But in course of time (1) the physical productivity of effort declines, owing to the relapse into wasteful methods of production and to the operation of the law of increasing costs; (2) agricultural shortage turns the ratio of exchange against industrial products; and (3) reverses its operation, and (4) the monetary stimulus to increased production, so far as it is illusory, disappears with the realization by each producer that the rise in prices is not confined to his own product; so far as it is real, is reversed by waning confidence and by the depletion of gold reserves.

In the course of Mr. Babson's paper two cases were mentioned, one involving the depression phase of the cycle 1893 to 1897, followed by the boom phase, which seem to support this analysis. The first case Mr. Babson mentioned almost at the onset of his paper (see page 41).

The other case which Mr. Babson mentioned near the close of his paper illustrates the agricultural relationship at the boom phase of the cycle (discussion of geographic movements of economic "Highs and Lows," see pages 49-50).

Mr. Babson in speaking of the manner in which industry and agriculture adjust themselves to price situations makes the statement that, "A farmer holds his production approximately steady and lets his prices fluctuate. A manufacturer lets his production fluctuate more or less according to prices."

While it is true that the farming business is not as flexible as industry, the farmers do adjust production as far as it is in their power to fit existing price situations. As a matter of fact they do what the business man does. They over-adjust and carry the program too far in one direction and bring about an over-production and a depression. They do



not anticipate the future accurately, and like the business man, the outcome results in a disillusionment which, by the way, is about the best one-word definition of a business depression.

If the wheat farmers held their production practically steady they would not be in the condition they are in today.

Statistical studies show that the adjustment of production of some agricultural products to price conditions is much more complete than many people would suspect. For example, one of the statisticians of the Bureau of Agricultural Economics has computed on the basis of cotton prices a formula by which he estimates nine months in advance the acreage of cotton harvested with an error of less than 1 per cent. Recently I have been studying hog prices, and I find that hog prices can be predicted many months in advance on the basis of price relationships.

The essential point is that farmers, like business men, do attempt to adjust production so far as it is in their power, but they also, like business men, do not have sufficient information upon which to make a proper adjustment.

I believe that the most beneficial service that can be rendered for both business and agriculture consists in telling the farmers and the business men what the present situation is and warning them what will be the most probable outcome if the present tendency and direction continue. In many fields we do not have all of the information necessary to supply the service, but recent progress of statistical research along these lines has been rapid.

In addition to the above informational service a more adequate marketing program in the case of many agricultural products, so as to secure an orderly marketing, will no doubt have a very beneficial effect. Likewise, a greater diversification of crops should be encouraged where more diversification is practical.

In this connection, Mr. Babson mentions an important phase of the problem, that of finding markets nearer the farm. Research along this line has and will show some very beneficial results in correcting some maladjustments in regional production by merely making available certain market facts and information to the farmers in various sections.

## **INTERPRETATION TO THE FARMER OF COST OF PRODUCTION DATA**

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This subject is naturally approached with some diffidence by one who is such a recent recruit to the ranks of Farm Economists, and only the desire to get some light on this involved subject prompts one to propose for discussion the following considerations:

During the past three years and even during the period preceding the present agricultural depression, we have all had our attention drawn to the following conditions:

1. That the data on average cost of production of many farm products indicate that these products are uniformly produced at a loss on a large number, often a majority, of the farms studied.

2. That in spite of this condition the price paid appears ample to call out the needed volume of production of these goods, and that a goodly share of those farmers producing at a consistent loss continue in the business, maintain a high standard of living and make persistent economic progress.

Although the public presentation of Costs of Production is not the chief purpose for which these data are gathered, still it is inevitable that they be so published. Of all statistical data, they are the most interesting to most people. If they, in any way, denote conditions that cannot be reconciled with known general facts, then doubt is cast on their accuracy and on the agencies responsible for their presentation, and, worst of all, if they are for any reason pessimistic, as they usually are in times of depression, then they are seized on by those whose interest, worthy or otherwise, it is to paint agriculture in its most gloomy colors.

We may safely accept the contention that in the collection of the original data, in the accounting and statistical methods used in its preparation and in its analysis for discovery of the basic economic facts of farm organization—the chief purpose of the work—sound and true principles have been followed and methods applied that have demonstrated their exactness and efficiency in many years of business accounting and applied economics. The progress in this line made in the few brief years of the history of cost accounting, in such a diverse

and intricate business as farming, is a matter of quite justifiable pride. May we not say, however, that in the presentation of the data for general consumption there has been a too rigid adherence to form and practice proven successful for those highly industrialized and departmentalized businesses in which cost accounting had its birth and had that great development in technique, on which farm cost accounting has been modeled. May we not say that in our earnest attempts to present an exact and correct picture of agriculture by faithfulness to outline, we have failed to acknowledge perspective, and our picture to the beholder is not true.

Believing, as we must, that in the long run the price received under reasonably free competition, as is found in agriculture, equals the cost of production, and finding, as we do, that costs of production under the accepted methods of presenting such costs, range somewhat higher than the prices received, the problem is to discover, if possible, additional revenue, or to discover, if possible, methods of presentation more in harmony with the economic mechanism of agriculture, that will tend to minimize the total of accounted costs.

Some solution of our difficulty may be found in an examination of the following considerations:

- (1) In American agriculture the ownership of a large part of all the factors of production, including the performance of the entrepreneurial function, is vested in the farm operator (land and part of the capital being excepted in the case of tenant operators). One man or one family is the chief claimant in the distribution of produced goods. Most of the true expenses of farm production are income or revenues to this chief claimant, the entrepreneur, out of which he can live, save and promote his well-being. In most industry other than agriculture these same expenses are true outgo, from the benefits of which the entrepreneur is almost entirely barred. May not this vital difference be reason for care and prudence in adopting methods of presenting accounts of costs that have been obviously devised for use in industry other than agriculture? To be more explicit, reasonable doubt may be cast on the practice of including in agricultural costs an item for reward of the entrepreneurial function in the form of an entry for management and risk. At best, any such figure must be arbitrary because a study of agricultural surveys or statistics

fails to reveal any fragment of return for such function except such as may be reflected in the returns for more than average skill.

The over supply of entrepreneurs, actual and potential, the well calculated natural risks of farming, the permanence and stability of agriculture growing out of the never changing necessity of society for foods, the peculiar characteristics of land which almost inevitably lead the entrepreneur, in the performance of his function of manager, to make an initial mistake in the over valuation of that factor, the comparative simplicity of the problem of economic distribution in the farm business, the insistent human urge of land ownership, and security of employment for the entrepreneur's labor, all these considerations have relieved the consumer of the need of paying a price to call out the services of the entrepreneur in agriculture, and indicate the doubtful propriety of arbitrarily adding cost items to cover management and risk in farm cost accounting. It is better that this reward be reflected only in the profits that accrue to those who by virtue of superior skill actually earn them.

Other items that require examination as to their competency to be included in the costs of production, are interest on capital and the rent of land. Without participating in the discussion as to whether or not these items are elements of true cost, we may agree that rent cannot in the social sense be considered a cost, but in the practical sense it is a cost, at any one time to any one farmer or group of farmers, located in any one place, and of any one specific commodity under cost scrutiny. Moreover, in the use of farm cost accounts for their primary purpose—the discovery and establishment of true economics of farming—interest must be taken into consideration on account of the wide variety of combinations of capital with the other factors of production, even in the production of a single product in one locality. At the same time, the wide diversity of views as to the propriety of including interest and rent as a cost, points to the necessity of carefully segregating every fragment of rent and interest from the other expense items in order that no element of cost other than interest, shall contain interest, and that these interest elements should be set out by themselves as a distinct item to be treated

as a cost or otherwise, as one's best judgment in the contingency may dictate. In this same connection, interest on capital and rent of land should be separated from each other wherever circumstances may permit of its being carefully and accurately done.

If it is a wise contention that the farming business, due to its owner-laborer-capitalist organization, offers the fullest opportunity for the cheap production of new and the replacement of old capital in the form of buildings, fences and drains, and the natural growth of new live stock capital, then the farmer is relieved of part of the market cost of acquiring a large share of his capital goods. This considerable saving helps to explain why the price received for farm products does not appear to contain a large item to meet cost of capital, and it would appear judicious in arbitrary calculation of costs to maintain the interest elements at a level at least no higher than the lowest commercial net rate over a period of years. Likewise it would appear wise that interest charges should arise only out of those farm enterprises which have a large amount of specialized capital, as real estate, equipment, horses, and other live stock. In the further consideration of rent as a cost, care must be exercised in controlling the inevitable buoyancy of this element, due to those peculiar characteristics of land that tend to give it at all times a higher exchange value than its immediate value in use. It is only too true that we lack basic data on which to isolate that speculative portion that makes up the difference in the two values of land.

For various reasons the net rental value is not a perfect measuring stick of productive value of land, for accounting purposes, chiefly because of the inter-family influence on free competition in tenancy, and the lack of sufficient tenancy in many areas on this continent to make this factor workable. Lacking definite guiding facts on this matter, wisdom would seem to indicate the prudence of setting this element of cost at a level no higher than the net long term rate for the highest class investment securities. It might be argued that the true alternative or opportunity rate should be used in this connection, but the exercise of the alternative, and the investment of the sale price of the land in the best paying market, consistent with security, would create a new social alignment of the factors of production, now owned and controlled by



the operating farmer, and would certainly force him into a new labor situation, the consequences of which contain a greater element of risk than is found in the present alliance of all factors under his own control.

The above observations deal largely with generalities that apply to the whole scheme of farm accounting without specific reference to costs of individual products of the farm. In the consideration of this latter phase, attention must be drawn first of all to the existence of a high degree of joint costs in agricultural production. Most farm commodities are produced, for the greater part at least, at joint cost. Not only is a great part of the capital invested (at least all land, buildings, horses and general farm equipment) devoted jointly to all the productive enterprises, but a great part of the operating expense (at least all the labor of the farmer and his family) may be considered as a joint expense incurred for all the productive enterprises of the farm. The costs arising out of these two factors form by far the largest group of costs of most of our farm products. Is it not possible that the separate farm enterprises might contribute unequally to the fund for meeting these joint costs, and yet be equally profitable contributors to the net economic welfare of the whole farm? Does not the very presence of the less profitable enterprises in the farm business render it possible for the more profitable to make the necessary excess contribution to the joint cost fund to bring that fund up to its total requirements? If the price received for any farm product is high enough to yield anything above the fragment of expense directly traceable to it, even though it may be considerably short of meeting all the share of the fixed or joint expenses apportioned to it by the opportunity or alternative cost method, that product cannot be truly said to have been produced at a loss. Railway freight rates offer an analogy in joint costs that permits us a clearer view of this problem. By no method of accounting or application of opportunity cost can the railway managers figure that the rates set for the movement of coal meets all the arbitrary costs of moving that traffic, but they recognize that since the rates more than meet the expenses directly attributable to coal traffic, the small surplus per ton over actual attributable expense is a valuable contribution to meet the

fixed or joint expense that would go on whether the coal were moved or not. So the rates are set at a low figure to permit as much as possible of coal traffic to move freely.

In agricultural practice this consideration is most apparent in costs of production of farm animals and animal products. On our mixed farms, beef cattle and sheep costs, particularly, and only to a lesser degree, milk costs, have the unfortunate tendency to over-top prices received when full application of the alternative or opportunity costs is made. This is so even when extreme care is exercised in keeping at the minimum items for rent, interest, and management expenses. Nevertheless, it is recognized in various ways that cannot be made fully apparent by a full application of opportunity cost analysis, that these enterprises, though by themselves unprofitable, contribute greatly to the lowering of the expenses of production of the other enterprises of the farm, and as this contribution is the only justification for their continued existence, it follows that the true educative value of cost figures cannot be served without a full consideration of these facts. Take the comparatively simple problem of the cost of the tractor, as compared with the costs of horse labor. On the basis of separable opportunity costs, the tractor can make out a good case for itself as a cheap source of farm power. But the costs of tractors are largely distinct cash outgo, directly traceable to the machine itself, and it contributes only a minimum amount to the joint cost fund. With the horse a greater part of its expenses are incurred for the whole farm business, they go on whether there is a tractor or not. So the farmer finds out to his sorrow that the apparently cheaper source of power actually lowers his bank account.

The working out of a solution of this problem that will stand the test of "reasonableness" is only less difficult in degree than that of determining the separate costs of horns, hide, fat and sirloin in the one beef animal, for the principle of joint costs is the guiding one in both cases.

But having raised, then beclouded, the issue, one's duty would not be complete if clarifying suggestions were not at least attempted. The following suggestions are therefore offered for consideration:

1. That management and risk be generally dropped from cost calculations, for the reasons previously advanced and for

the further reason that the risk factor is instinctively calculated in any business like farming, whose practices and methods are built up almost entirely on past experience, therefore the arbitrary inclusion of risk in costs is an actual duplication of this element.

2. That interest and rent costs be kept at the lowest known long-term net rates on the safest class of securities, at least until such time as further research in land economics discovers the real weight of the speculative fragment of land values.

3. That interest charges arise only out of those accounts which disclose a large amount of specialized investment, real estate, equipment, horses and other live stock, with their special equipment.

4. That the accounting system isolate all interest elements in the account of each separate product or service, and that the direct interest charge in each product account be separately stated, since this element is not a joint cost while the other interest elements invariably are.

5. That the accounting system make a reasonably complete separation of paid labor from operator's and unpaid family labor.

6. That in preparing a schedule of the costs of any produce, the following order be generally observed:

- (a) Direct cash costs attributable to the product.
- (b) Interest, rent and depreciation attributable to the product.
- (c) Opportunity cost of other marketable home-grown products used.
- (d) Joint costs, including in order:
  - Cash expense.
  - Home-grown products not otherwise marketable, straw, etc.
  - Operator's labor.
  - Use of horses, farm equipment and buildings.
  - Interest, rent and depreciation jointly incurred.

The above demands no radical departure from principle and method now used in accepted systems of farm cost accounting.

7. That in each separate product account the term cost be applied to all items appearing in the above schedule except joint costs.

8. That the items appearing under joint costs in the above schedule be designated, as far as that product is concerned, *desirable net revenue* or *desired producing profit*, or any other suitable term that would indicate that there are elements of profit in these joint costs.

9. That the itemized product costs schedule as above outlined be paralleled by a product revenue schedule, showing the actual amount contributed by that product to the joint cost fund, or the desirable net revenue fund, or the desired producing profit fund.

10. That the several contributions of the various product accounts to the joint cost fund be brought together in an account, in order that their total may be ascertained, and so that the effect or reaction of each on the others may be more easily studied and a clearer and truer perspective of the whole farm business be obtained.

In conclusion, it might be asked if it is reasonable to expect in a business of the widely diversified, highly seasonal, intensively joint cost character as farming, that each of the several enterprises can consistently bear the exact share of the joint cost items apportioned to them by what is obviously an arbitrary method of cost allocation.

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## THE USE OF DETAILED COST STUDIES IN IMPROVING FARM ORGANIZATION IN A COMMUNITY

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In presenting this subject I am assuming that the primary purpose of detailed cost studies as well as of all other lines of farm management and farm organization research is to help individual farmers in the organization and operation of their business. Incidentally there are collected through the detailed cost method a large number of general facts pertaining to the business of farming which are exceedingly valuable in studying agriculture as a whole, its relation to other industries, and the general subject of the distribution of the national income. However, I believe that the major emphasis in this type of research should be placed not on the gathering of a large number of general facts in regard to certain groups of farms or concerning farming as an industry, valuable as these may be, but primarily and fundamentally on those specific facts that are most useful to the individual farmer in determining the most profitable or desirable utilization of the resources at his command. It is on these grounds that we can best justify the use of public funds for this type of investigational work and it is by this standard we must measure the success of our projects in this field.

It may be well here to review briefly the development of detailed cost studies. The first detailed studies in the cost of producing farm products were commenced January 1, 1902, in Minnesota by the Minnesota Agricultural Experiment Station in cooperation with the Bureau of Statistics of the United States Department of Agriculture. Three groups of fifteen farms each in different sections of the state were studied by the route method. This type of research has been maintained continuously in Minnesota up to the present time with the exception of two years—1918 and 1919—when war conditions so disorganized the personnel and made farming conditions so abnormal that the work was temporarily suspended. It was renewed January 1, 1920, and two routes of twenty-four farms each are now being maintained in cooperation with the Bureau of Agricultural Economics. This type of work has been adopted from time to time in various parts of the country until at present twenty states are conducting detailed cost



studies either independently or in cooperation with the Bureau of Agricultural Economics. The scope of the work is sufficient to justify the giving of considerable attention to the effective use of the rapidly accumulating data.

Let us consider for a moment the general field of farm organization in order to determine what type of data is useful in planning the farm organization and to classify the problem of its application. The field of study may be quite logically divided into two general lines:

1. The choice and combination of enterprises.
2. Efficiency in the conduct of enterprises.

Time does not permit an extended discussion of these two lines of study. However, one can make the general statement that in a section where the type of farming is fairly fixed and permanent, little improvement in the choice of enterprises can be suggested. Climate, soil and markets limit the choice of crops to a narrow range. Those crops in any community which the majority of the farmers are growing successfully are usually the best adapted to that community. A permanent change in economic conditions may dictate a change in the choice of crops for a locality but such changes are neither frequent nor numerous. The introduction of new crops may also result in a slight displacing of those previously grown. The livestock enterprises are also largely determined by available feeds and by market conditions coupled of course with the personal abilities and preferences of farmers and by their means.

In the adjustment of the size of enterprises so as to secure a well-balanced combination there is probably more chance for improvement of the farm organization than through changes in choice. The problem of the adjustment of the livestock enterprises so as to use to best advantage the crops grown as well as the adjustment of both crops and livestock to the available supply of labor and of the other resources at the farmers' command offers a fertile field for study and undoubtedly is of more or less importance on every farm.

However, I believe that the largest improvement in farm organization is possible and the largest increase in the farmer's net income can be effected through increased efficiency in the conduct of the several enterprises comprising the farm business. This problem can not be wholly divorced from that of choice and combination of enterprises. The most efficient con-

THE USE OF DETAILED COST STUDIES IN IMPROVING 71  
FARM ORGANIZATION IN A COMMUNITY.

duct of the dairy enterprise may necessitate the substitution of alfalfa for some of the existing acreage of timothy hay. Likewise it might be necessary to increase the cattle enterprise sufficiently to consume the quantity of leguminous roughage that must be grown in order to maintain the productivity of the soil. These inter-relations complicate the problem but the study of the conduct of the individual enterprises will bring out the need for these adjustments in the size of the crop and livestock enterprises and to a certain extent in the choice of enterprises. It is this enterprise study then through which we can hope to effect the greatest improvement in the farm business and to which I wish to give particular attention.

In order to avoid the abstraction that is likely to result from generalizations in regard to the use of the data in question, I am going to discuss their use in a particular area where a cost route is now maintained. I believe the first and most important test of the usefulness of any investigational work should be in the area where the study is conducted. Unless the data collected on a detailed cost route can be applied to the problems of farm organization in the area in which the route is located, they can hardly be expected to have any considerable usefulness elsewhere. Then, too, it must be effective on the actual farms on which the records were collected before it can be useful in the community as a whole. Farm organization is an individual problem and farm organization in a community can only be improved through the improvement in the organization of its component farms. Some of the individual problems are of significance to the community whereas others may be of very limited application. It is true that considerable personal service is rendered to individual farmers on a cost route in applying their data to farm organization problems but in so doing principles of general application to the community are illustrated.

The cost route to which I wish to refer specifically is located in Steele county in the dairy section of southeastern Minnesota. The type of farming there has developed gradually from pioneer grain farming to a diversified type built around the livestock enterprises of which dairying is the most important. The crop sales seldom amount to over five per cent of the total receipts and usually represent the sale of surplus pro-

duction allowed as a margin of safety over feeding requirements. Often the purchase of feeds more than offset these crop sales.

In analyzing the cropping system on these farms by means of detailed cost data the significant fact to keep in mind is that crops are to be used primarily for feeding. Hence those crops should be grown which will produce at the lowest cost the largest amount of feed for stock of a kind and quality that will meet the ration requirements for this stock and at the same time distribute the labor requirements in accordance with the available supply. Since the cropping system in this locality has been developed gradually but steadily to meet these requirements one can hardly expect to find that any considerable changes can be suggested by cost data.

Let us consider the small grain crops first. The principal small grain crops of this area are oats, barley, wheat, and mixtures of oats and barley and of oats and wheat. Since there is no significant difference in the cost of producing these several crops and since they are largely competitive in their labor demands the basis of selection is the amount of feed for livestock that an acre of each will produce. This can be determined with any cost study. Cost accounts have, however, served to bring this fact quite forcefully to the farmers' attention. They have especially emphasized the fact that spring wheat was unprofitable as a cash crop, especially when the farmer was buying with the proceeds of its sale, considerable quantities of mill feeds. The average yield of spring wheat was thirteen bushels during the first three years of the study. During the same period oats yielded forty-five bushels per acre and barley thirty bushels. At the prevailing prices wheat from one acre would purchase only about nine hundred pounds of bran or shorts whereas the same acre would produce over 1,400 pounds of either oats or barley. The result has been a decrease of nearly eighty per cent in the acreage of spring wheat and of 60 per cent in the amount of mill feeds purchased. More feed of equal or greater value in the ration has thus been produced on the farm and the extra hauling costs of marketing the wheat and buying the mill feeds has been eliminated.

Corn, like small grain, is grown as a feed crop and the acreage is determined by the requirements for livestock pro-

duction. Silage is essential to profitable dairy production and corn is grown for this purpose as well as for grain.

The three principal hay crops are clover and timothy either alone or in mixtures, alfalfa, and wild hay. Since wild hay is usually produced on land too poorly drained for other crops, the acreage is largely fixed. The principal choice of hay crops, therefore, lies between alfalfa and timothy and clover. Cost accounts have shown that in spite of the high cost of getting a stand of alfalfa that a ton of it can be produced at less cost than a ton of timothy and clover and is worth considerably more for feeding. In 1920 the cost of producing a ton of alfalfa was \$8.16, of clover and timothy \$9.06; in 1921 alfalfa \$6.32 and timothy and clover \$8.56; and in 1922 alfalfa \$5.60 and timothy and clover \$6.98. The annual reports sent to these farmers showing these comparative costs, the presentation of them in local farmers meetings by the investigators and the discussion of them with the individual cooperators by the route man have impressed the advantages of alfalfa on these farmers. In 1920 only seven of the twenty-four cooperators grew alfalfa and the average acreage per farm was a trifle over one acre. This year all but one farmer on the route is growing the crop and there is an average of over five acres per farm.

As in the case of crops, cost accounts have suggested the desirability of few changes in the choice of livestock enterprises. They have indicated, however, a need for some adjustment in the relative size of enterprises. On some farms an expansion of the dairy enterprise so as to use to advantage the available supply of labor and feeds has been suggested. On others the low production of the cows and the shortage of feeds have made it desirable to curtail the enterprise by the sale of lowest producers in order to feed more adequately the balance of the herd. The expansion of the swine enterprise to handle advantageously the skim milk from the dairy enterprise was suggested on many farms. The possibilities of increasing the net income by increasing the poultry enterprise are shown in many cases.

The changes in the choice and combination of both crop and livestock enterprises suggested by cost accounts are few as compared with changes in the conduct of the enterprises that

result in increased efficiency of production. What changes in crop acreages were suggested were largely the result of the study of individual livestock enterprises and an attempt to meet feed requirements for stock. By comparing practices on all farms on which records were kept it was possible to determine the most profitable methods of production for each enterprise or at least to learn what practices usually resulted in a low cost of product. The chief difficulty involved in this analysis is the differences in the quality of the factors of production on different farms and the differences in the farmers themselves. It is impossible to list all the ways through which the organization of these farms could be improved through increased efficiency in conducting individual enterprises. Most of them are based on increased production per acre or other unit without corresponding increases in cost. I will mention a few as examples of improvements suggested.

1. Decreasing the cost of oat production by disking the seed into corn stubble instead of plowing.

2. Decreasing the labor requirement of corn production through harvesting it with stock.

3. Increasing corn yields by applying manure to plowed land and disking in rather than plowing under.

4. Cutting the cost of horse labor by more use of rough feed and pasture and less grain when horses are idle.

5. Increasing dairy production by breeding and selection.

6. Increasing dairy production by increasing grain feed without proportionate increase in cost.

7. Cheapening dairy production by increased use of alfalfa and leguminous roughages.

8. Decreasing grain requirements for pork production by the use of clover, alfalfa and rape pasture.

9. Increasing the productivity of labor by reducing the amount of unproductive work and planning operations more systematically.

10. Decreasing the labor requirements for crop production by a better field arrangement.

These are but a few of the many practices which serve to cut production costs that are suggested through a study of cost records. In most cases the economies that result from these practices are small but in the aggregate they have a considerable influence on the returns from the business.



Let us now consider the methods through which the results of cost studies can best be brought to the attention of the farmer who is cooperating in these studies and also to other farmers in the community. There are three steps through which may be effected the adoption of any change in farm organization or practice in response to the results of research. In the first place the facts must be brought to the farmer's attention; second, he must have confidence in the value of these facts, that is, the reliability of the data on which they are based and their application to his own problems must be demonstrated to his satisfaction; and, third, the farmer must actually adjust his own business in line with these facts.

In connection with this first step, namely, that of bringing the facts to the farmer's attention, I wish to state that the research man in the farm organization field must also be to a certain extent an extension worker, or at least have closely associated with him the extension specialist in his field if he wishes to make the most effective use of his findings.

In bringing the data to the farmers' attention each individual farmer must be supplied with statements analyzing his business as a whole, and each of the component enterprises individually. These statements should be supplemented with similar statements covering the whole group studied and possibly a small group of the most successful. Through these statements the investigator and the route statistician can point out to the farmers cooperating the possibilities of improving their individual organization by adopting practices that have proven most successful on other farms. By calling community meetings at which these statements are discussed it is possible to interpret these reports not only to these farmers but to others in the community.

The most effective type of meeting in our experience is what is called the farm management tour. This involves a visit by all farmers in the community to a few of the more successful farms in order to study the methods practiced. By selecting farms with a well-balanced organization on the one hand, or those on which some one enterprise is conducted with a high degree of success on the other, it is possible to illustrate the principles of good farm organization and demonstrate the results of successful practices in conducting individual enterprises.

The second step, that of securing the farmer's interest and confidence in research findings is accomplished very effectively through this tour or visitation method. However, I believe the most important factor and that which lends the greatest value to detailed cost studies is the method itself. The daily recording of data covering the farm business, especially under the careful supervision possible under the route system, and the thorough checking to which the figures are subjected, commands the confidence of the farmer.

Even though other methods of research do provide data sufficiently accurate for the analysis used they do not have the same standing with the farmer as have regularly recorded facts. In fact it is my observation that farmers have considerably more faith in the accuracy of detailed cost data than I myself can claim.

Another advantage of detailed cost records is their completeness, the fact that every phase of the farm business can be studied. Practically all the questions that arise in the farmer's mind can be answered by the data available.

Still another phase of complete cost work that is important in commanding the farmer's confidence is the number of years covered by the study. The farmer is keenly aware of the wide variation from year to year in the conditions that affect production. It is true that with one year's figures available corrections can be made by estimation for conditions that might be considered abnormal that year and a so-called normal figure computed. Such a process of correction always involves a large chance for error and can not win the farmer's full confidence. All things considered, detailed cost studies should be conducted for at least three years in a given community in order to provide an adequate basis for analyzing its farm organization problems and the records of five years would be considerably more valuable. The continuous records have the advantage of enabling the farmer to observe the result of such changes as he may make in the operation of his farm and also gives the investigator the opportunity to note the extent as well as the effect of these changes.

In regard to the third step, that of inducing farmers to actually make changes, I can say little except that they should follow as the logical results of the steps just mentioned. To be sure there is an inertia of custom and personal likes and

dislikes that tend to prevent certain farmers from changing their organization even if to do so would increase their returns. Sometimes they lack the means to make changes even when they realize the gain that would result. In general, however, the farmer is as ready as any other business man to grasp at any opportunity for increasing his income that may present itself.

It is always very gratifying to any research worker to be able to point to definite improvement resulting from his findings. In some lines of work this is not only possible but comparatively easy. Such unfortunately is not the case with farm organization research. Farm organization itself is a highly intangible thing. Changes may be numerous but yet so small individually that they are not striking. Even if they are large they may be caused by a combination of circumstances, the influence of no one of which can be measured accurately. However, in the area to which I have referred certain changes have taken place on the farms studied which according to the farmers themselves and the opinion of competent observers, are due to the records that these farmers have kept. Altho the work was only started in 1920 and the results of the first year's records were not available till after the 1921 business was well under way, certain general but definite changes are to be noted.

One of the most conspicuous of these changes is the rapid increase in the alfalfa acreage. All but one farmer on the route is now growing this crop whereas only seven farmers were growing it in 1920. The average acreage per farm in 1923 was five as compared with one in 1920.

It is significant to note that the average increase in alfalfa acreage per farm on the route has been twice as great as in the entire townships in which the route is located, and two and one-half times as great in these townships as in the county. Wild hay land has been plowed up wherever suitable for cropping and replaced with clover or alfalfa. On farms where labor is available to handle the crop, alfalfa has replaced clover.

There has been a considerable increase in the use of pasture, particularly rape and alfalfa, for hogs. The amount of grain required to produce a pound of pork has been reduced, largely

through this use of more and better pastures. The hogging down of corn has increased rapidly.

Since dairying is the most important enterprise on these farms it is only natural that the greatest improvement should be made in this enterprise. The first year's record showed that one of the weakest points in the organization was the low production of most of the dairy herds. This is being rapidly improved through breeding, selection and better feeding. Since 1920 one cow in every five has been sold off each year as the result of the "weeding out" of the low producers. As a result there was an average increase in the production of butterfat per cow from 1921 to 1922 of twenty-five pounds for all cows included in the study. In case of individual herds this increase was as great as forty-six pounds per cow. This improvement alone added an average of over \$200 to the income of each farm. Not only was the production per cow increased but the amount of feed per cow actually decreased. The increased use of alfalfa and the better balancing of rations has decreased the cost of production. Except for a small quantity of oilmeal, farm grown feeds have completely replaced the considerable quantities of commercial feeds that were formerly fed.

Less labor is now being hired and more attention is being paid to labor-saving practices, the avoidance of unproductive labor and to planning a labor program that will use the labor available effectively. These are but samples of the changes that are being observed on these farms.

It must be recognized that the whole extension program of the agricultural agencies of the county are stressing these same points and the results can not be ascribed altogether to the detailed cost studies. However, it is interesting to note that all the farm bureau units in the townships in which the route is located are using the route data as the basis for their projects and their programs of study. In fact every township farm bureau unit in the county was represented at our farm management tour the past summer when the results of the study were observed and discussed, and has since made use of the detailed cost data presented in their local programs.

The agricultural department of the high school in this area builds its farm management studies around the cost data collected on the route. According to the state supervisor of Smith-Hughes instruction it has the strongest farm manage-

ment courses given in any high school in the state. Farm management has been established as one of the regular projects for boys' and girls' club work in the county. The club team winning the farm management demonstration contest at the state fair the past year was from the locality covered by the route and used detailed cost data from the route in their demonstration.

This variety of agencies disseminating the findings of detailed cost studies in this area has enabled them to have a circle of influence wider than the farms studied. In addition to the direct results that have been obtained these cost studies exert an indirect influence that may often be even more important than the direct. Farmers become accustomed to thinking in terms of hours of labor, pounds of feed, and various cost units. Facts of which they have general knowledge are brought to their attention more forcefully by being reduced to specific figures and expressions. The very fact that the farmer has placed before him the various costs incurred in the production of a particular product leads him to study them individually with the purpose of determining to what extent it might be possible to reduce or avoid any of them. Many of the facts brought out in cost studies as far as the individual farm is concerned are already known in a general way by the farmer and are being used to some extent by him in conducting his business. A careful record of these facts, however, impresses them upon the farmer, and especially when they are compared with similar data from other farms leads to a definite and conscious effort to profit by the knowledge.

In presenting this subject I have said little about methods of analyzing and interpreting cost data in order to make them useful for farm organization purposes. At our annual meeting last year Dr. H. C. Taylor in his paper on "The Objectives in Agricultural Cost Accounting" outlined the general plan of this analysis. Professor Leitch in his paper read this afternoon called our attention to cautions to be observed in this interpretation. To these I would merely add the suggestion that this analysis may be divided into two classes or types, according to purpose. The first involves the consideration of general problems such as require the data from a group of farms and is primarily the work of the investigator. The



second type is the analysis of the business of an individual farm by the farmer himself from simple farm records. The personal service rendered to individual farmers cooperating in cost studies is possible only for small groups of farmers for short periods of time. Hence it is important to teach these farmers the methods of interpretation in order that they may be able to use to advantage such records as they can keep without the aid of the investigator. In so doing it is possible to learn the type of farm organization data most useful to a farmer and the method through which he can use it most advantageously.

In closing I want to repeat the statement I made at the outset, that detailed cost studies are primarily farm organization studies. They should have their greatest usefulness in this field. If properly analyzed and interpreted they should provide the individual farmer with information that will enable him to make the most effective organization of the resources at his command. The final test of this as well as of any other method of collecting and interpreting farm management data should be the improvement of farm organization actually effected in the community where the study is conducted. It is not sufficient to be able merely to point out defects in present organizations. If in addition to pointing out these defects it is not also possible to suggest remedies that can and will be adopted by the farmers concerned and the net returns to their resources increased thereby, the investigational project involved is falling short of its primary and fundamental purpose.

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#### DISCUSSION BY R. H. WILCOX

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The paper we have just listened to so excellently and thoroughly outlined the type of farm organization material secured through the detailed cost method and the uses to which it can be put, together with the measures of certain uses that have been made of it in Minnesota, that I feel there is possibly little I can do other than emphasize again some points brought out by Mr. Pond.

The division of the work in the field of farm organization into "the choice and combination of enterprises" and "effi-

ciency in the conduct of enterprises" is very logical, as it sets up upon the one hand the question of what shall be produced and upon the other hand just how best to produce it. But in the matter of this classification I liked Mr. Pond's statement to the effect that the problem of increased efficiency in the conduct of the several enterprises comprising the farm business cannot be wholly divorced from that of choice and combination of enterprises.

I sometimes feel that we are unfortunate in the use of the word "choice" in applying it to adjustment and gradual shifts in farm organization, and agree that where the type of farming is fairly well fixed and permanent, possibly, comparatively little improvement in the choice of enterprises can be suggested if we are thinking of the results of choice as a complete change in the kind of crop or livestock; but if we are thinking of choice in the way of changing the proportions and combinations of crops and livestock enterprises, there is, I believe, a wide field for work in farm organization even in those areas where the system of farming seems more or less fixed. The experience upon the Minnesota route where in 1920 only seven out of twenty-three farms raised alfalfa, and these but very little, while at the present time all but two grow alfalfa, and in larger proportions, indicates that choices and adjustments have been made in this pretty well fixed dairy section.

And I wonder if throughout the Northwest generally there is not need right at this time, when economic conditions are so out of normal, for some careful selection of farm enterprises. Are not the individual farmers in this, as well as other areas, going to have to take stock of the resources available on their own farms and in the light of relative price trends of farm products make adjustments in crop acreages and livestock proportions during the next few years? Conditions vary widely between farms and areas, certain crops may have an important place in the scheme of some farms and may not warrant much change, while in other instances there may not be sufficient current resources available to change the present crop or livestock proportions. This, however, does not alleviate the prob-

lems of these farms; it rather accentuates them. There is a wide variety of conditions also under which there is opportunity for the making of definite choice as between different crops and kinds of livestock. This is especially true within those areas bordering upon different types or systems of farming. For example, we have in southern Virginia the farmer who, during the past fifteen or twenty years, has devoted the major portion of his resources to tobacco production. Today he is calling for farm organization facts which will aid him in deciding whether or not cotton might be profitably included in his farming system through cutting down a portion of his tobacco acreage and using this area for cotton together with some less fertile portions of his farm not well suited to tobacco. He is representative of a large group of farmers who find themselves existing upon the borderland between two well-defined and somewhat permanent systems of farming.

This is a time when we are in position to take the lead in correctly guiding the farmer in the choices he should make and point out to him the important considerations and steps to take under the present general economic conditions and the conditions as they exist upon his own farm. It is in the nature of the farmer absorbing the material coming out of this form of research and using it in making the proper selection and association of enterprises upon his farm that we should give very careful consideration.

In the main the farmer is attempting to obtain the largest net returns from the resources which he has at hand—his land, buildings, machinery, horses, other livestock, and the labor of himself and family coupled with that degree of management ability which he may possess. As costs and prices change he will need to make adjustments in the amounts of these devoted to different lines of production. In aligning his resources for their most profitable utility he must first realize that different enterprises make different demands for the amounts of each of these resources and at varying times throughout the year. Unless the use of alfalfa in the feeding ration is considered along with the fact that the labor demands during the summer season conflict with corn cultivation the wrong adjustment may be made. The

farmer will want to look to it that any crop and livestock organization that he may plan gives him as good labor distribution as is consistent with the maximum combined uses and returns he can get from the organization as a whole.

How is the material coming out of the detailed cost work going to be of service to the man keeping the records or to his neighbor in the immediate community? Mr. Pond has shown us how the choice between wheat and oats upon a livestock farm may be based upon the ability of wheat to more than meet the value of mill feeds made necessary through the lack of oats. This may be a correct comparative measure to make of directly competing crops, but where the detailed cost records show that crops do not compete for the resources of the farmer the problem is a more complicated one. Here it is a question of whether the product of one association of non-competing crops in the rotation furnishes more feed, or the income to buy more feed, than another group of associated crops.


The choice of alfalfa to displace clover and timothy, because alfalfa costs less to produce per ton, as Mr. Pond shows, may not be the proper adjustment to make, for detailed records may show that alfalfa cutting comes earlier than timothy cutting and interferes directly with the peak load demands at corn plowing time. It may be that the necessary neglect of the corn crop to get alfalfa cut and mowed away cancels these cost margins which appear to be in favor of alfalfa.

Generally speaking, I agree with Mr. Pond that the largest net increase in the farmer's income can be effected through increased efficiency in the conduct of the several enterprises comprising the farm business. But I shall want to add that this is more often so in normal times in a diversified system of farming not too far out of line with economic conditions. This just means that there is a point where it can be expected that changes in the choice and proportions of enterprises will add more to the farm income than the maximum increased efficiency in production.

The method of placing facts coming out of the detailed cost route before the attention of farmers not on the route, making these facts appeal to the reason of farmers not

personally interested in the route itself, and getting them to act upon the facts, are varied and have met with varied results. The underlying objective here should be to appeal to the farmer through suggestion by presenting to him certain standards of performance and organization through simple illustrations which can be gotten out of the records of the best farmers on the route. If he can be shown, as the result of suggestions, that there is reasonableness to what we have to offer him, and if there is an application which he can make of the facts, there is little doubt but that in time he will come to accept the general principles and as a natural sequence begin to act upon them.

The detailed cost method of gathering farm organization material has been tested now for several years and has developed to the point where the facts assembled should be sufficiently authoritative to permit their being carried back to the farmer in such form as will be of help to him day by day in working out his farm organization problems. It is always well that we take stock from time to time of what the work has accomplished with a view to setting forth again somewhat more clearly the uses to which the data may be put, and to give careful and thoughtful consideration to just what facts the detailed cost studies do or can make available that will be of most direct and constructive assistance in helping farmers solve their organization problems, keeping in mind that no matter how clearly or correctly these facts have been analyzed by us they cannot accomplish their full purpose until they have been interpreted in relation to the problems of every day farm operation, and disseminated throughout the entire structure of every community to which they apply. The test of all this work and of any means employed in carrying it to the farm will come through making these correct farm organization principles appeal to the reasoning of the farmer and result in correct thinking on his part. The farmer is always confronted with the task of making decisions. If his thinking can be properly directed at the time he is making these decisions our work will have accomplished its purpose.





## THE ENGLISH LAND SITUATION

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The two phases of the land situation in England which are uppermost at the present time are:

- (1) The breaking up of the large landed estates; and
- (2) The attempt to establish small holdings.

Large holdings with the farms operated by tenants has long been the prevailing practice in England. It was reported in 1906 that not over 4,000 persons possessed on the aggregate an extent of 19,000,000 acres or 41 per cent of the total area of England and Scotland while about 2,250 persons owned together nearly half the inclosed land in England and Wales. In 1913, only 10.6 per cent of all the farms in England were operated by owner occupiers, and many of these were the home farms of large estates. In 1921, 20 per cent of the holdings in England and Wales were occupied by owners.

The movement towards the breaking up of the large estates was noticeable as far back as 1907, when the sales of agricultural land began to increase in a marked degree. This increase continued except for the first two years of the war and reached its maximum in 1919. The greater part of the area sold was made up of estates which had been owned by members of the same family for long periods—often for centuries. The causes of the break up have been many. In the first place it has long been commonly accepted that the ownership of landed estates in England was not economically profitable. Before the war it was generally said that the net return to a landlord on his investment was not over 2 per cent. With the increasing costs of maintenance and taxes since the war the return has been much less and for the past few years many landlords have been receiving a net rental of practically zero. Sir Robert Howe submitted figures for 10 agricultural estates in 1919 with a total area of over sixteen thousand acres and a capital value of \$2,500,000, the net income from which was \$23,000 or less than 1 per cent. Statements could be multiplied to show that agricultural land in England which was not economically profitable for some time has become even less so since the war. It is commonly said in England today

that landed estates are not giving their owners a gross return of over 5 per cent on the capital value of the land or a net return of over 1 per cent. This small return to capital invested in agricultural land is the main cause behind the breaking up of the large estates.

While rents were raised to some extent with the rise in prices during the war, in few cases was the increase sufficient to meet the rising burdens of costs. Rents probably reached the lowest point of the past half century about 1896. In that year the average rent of agricultural land in England was said to be \$5.00 per acre whereas in 1875 it was \$7.25. This was the culmination of a period of bad years, farms were difficult to let. Impoverished owners had no means to pay the tenant rights valuations and farm the land themselves—they were therefore obliged to accept almost any rent that was offered. The low level of rent then established has been only slowly raised. On many estates where the same families have remained in occupation of the farms, the rents have been raised only moderately if at all since the nineties. Even where entirely fresh tenants have come in, the rents were rarely raised to the open market value. Owners shrank from any considerable raising of the rents. It is estimated that rents in England have gone up on the average not over 20 per cent since 1906. An analysis of the expenses on a group of Eastern county farms by Professor Orwin, of Oxford University, showed the tenant's outlay for rent, rates and taxes to be 18 per cent of his total annual expenses in 1913 and only 11 per cent in 1920. The benefits of higher prices for farm products during the war were reaped first by the tenant operator, second by the laborer, and least of all by the land owner.

The increasing expense of upkeep has been another contributing cause. It is estimated that the expense of upkeep which amounted to 24 per cent of the gross rental in 1909 had increased to 36 per cent in 1920. Post war costs are said to be from 2 to 3 times the pre war rates for works of upkeep. The cost of maintaining the mansion, grounds and gardens has also greatly increased and proved a serious drain on the already reduced and heavily taxed income of the owner; added to this has been the increasing difficulty of obtaining servants and laborers who are content to live in the country; abatement of rents, jointures, family charges and pension donations,

and subscriptions incident to ownership have proved additional heavy burdens. Sir Henry Gibbey has presented figures relating to his property showing an item of \$2.00 per acre for what he terms "the essential and paramount disbursements of a landlord on behalf of his poorer neighbors."

Increased mortgage rates is another contributing cause. Money on farm land which could be borrowed at  $3\frac{1}{2}$  per cent ten years ago now costs 6 to  $6\frac{1}{2}$  per cent.

The burden of death duties has caused many estates to be broken up. The Finance Act of 1914 imposed heavy death duties on the owners of agricultural estates by repealing the protection formerly granted to settled estates; this brought about the reduction of estates and in many cases the sale of the whole upon the death of the owner. These duties were greatly increased by the Finance Act of 1919 until now the death duty of an estate of \$500,000 would be  $14\frac{1}{2}$  per cent of its capital value. In view of the small returns to land, unless an estate has considerable liquid capital it is usually necessary to dispose of at least some of the land to pay the death duty. Although it is true that the rate of estate duties are nominally the same on all classes of property they press with great severity on the owner of agricultural land, the net income from which has been shown to be very small in return to its capital value. Especially is this true of those land owners who have no other source of income than from their land. It has been said that the present scale means the disappearance of the large agricultural estates in two or three generations at least.

Increased taxation, tithes and rates have been other contributing causes. Local rates in England have increased over 100 per cent since 1914. Tithe rent charges of 1922 were 50 per cent above those of 1914. Income taxes, super taxes, and other forms of central tax have shown a corresponding increase.

All of the foregoing reasons have kept down the net returns to agricultural land. While money invested in an agricultural estate gives a return of around 1 per cent, the same money invested in government bonds will yield a return of 5 per cent with much less trouble and care. Increasing costs and high taxation have caused the Englishman to

look carefully to his income and almost without exception investment in agricultural land has proved to be the source of the least return. The maintaining of large country establishments has proved a heavy burden. From a financial point of view and disregarding personal and sentimental consideration the results accruing to the owner of a landed estate by sale have been eminently satisfactory. Prices realized were based not on the existing rent but on a fair market rental. The results of a sale could not fail to produce a sum which when invested at current rates has given an income greatly in excess of that formerly received. An agricultural estate of 5,500 acres in a southern county netted the owner an income of \$10,000 a year. The property realized a total of \$950,000 when sold, which yielded \$45,000 when reinvested.

Political reasons have also contributed. Beginning with the Finance Acts of 1909-10 the trend of modern legislation has been unfavorable to the landowner. He has been threatened with land nationalization and other projects savoring of confiscation, his freedom of contract and sporting facilities have been curtailed. The agricultural act of 1920 imposed a penalty of one year's rent for the disturbance of a tenant. The labor party which is rapidly increasing in political strength in England has definitely committed itself to a policy of land nationalization and is decidedly antagonistic to the large land holders. Should the much discussed capital levy become a law in England it would inevitably result in the necessity of disposing of many estates. During six months spent in England in the past year the writer noted that the Labor Party in Parliament argued against every bill projected for the benefit of agriculture, stating that it would only increase land values which are socially created. Attempts have been made in certain quarters to discredit landowners as a class.

Another cause which fostered the movement was the increasing profits in farming after 1907 and especially during the war. Land values were rising up to and including the year 1921. In former years a large estate when sold had been usually disposed of to a single buyer, often to one who had accumulated money in trade, at home or abroad. The ownership of a landed estate gave social standing.

But with decreasing returns to the landlord, the high cost of maintenance, the need for economy, and the growth of a more materialistic and commercial age there were now few buyers of this class. Land ownership no longer gives the social prestige and political strength it formerly did. Many landowners were hard pressed for money. Enterprising companies of auctioneers conceived the plan of breaking up the estates and selling the land in small parcels. Some tenants had accumulated money and were thus in a position to buy. The owner and auctioneers saw a favorable time to dispose of their holding. Very frequently, however, the tenant bought rather from necessity than from his own wish. They greatly preferred to remain undisturbed as tenants as the rent paid was much less than the interest on the purchase price. But what was the position? There were very few farms to rent, the tenant knew that if he did not purchase there would be no lack of other buyers. His experience on the land had thoroughly taught him its capabilities. His staff of men, his herds and flocks were suited to the farm. Further there was frequently a very strong personal and family attachment to the place. Times were improving, capable men were making reasonable returns. Politicians were pledging themselves for the future to foster and encourage agriculture and the agricultural acts of 1917 and 1920 seemed to give concrete evidence of their good intentions.

During 1922 and 1923 the sale of estate has been less rapid than during the few preceding years. This is probably due to the depression in agriculture since 1921 and consequent decrease in buyers rather than to disinclination on the part of owners to sell. Few tenants are now buying their farms, while many of those who purchased during the post war period now regret their action. Estates are still being sold. Very rarely, however, is a large estate sold to a single buyer unless it be to a public institution or association of some sort.

Large estates still prevail in England. In 1913, of the 143,231 farm holdings over 50 acres in size, 13,247, or about 9 per cent, were occupied by their owners. In 1921, 20 per cent, and in 1922, 18 per cent were occupied by their owners. Some who purchased during the past few years



have been forced to resell. The tenant farmer in England today by virtue of his low rent and cheap labor is probably as prosperous as the farmers of our own corn belt. The landlord has again served as a shock absorber in that he has assumed a large share of the burdens incident to increased taxation and deflation. What the future outcome will be probably depends as much upon political action as any one thing, but it seems quite certain that with the present low returns to the land owner the tendency will be for large land holders to dispose of their property when a favorable opportunity presents itself. At present there are few buyers.

Good farm land in England today is selling for from \$65 to \$225 per acre, with from \$80 to \$150 per acre the most usual prices for farms of any size. Arable land brings much less than good grass land. When one compares these prices for land within fifty or seventy-five miles of the world's largest consuming center with prices in our own corn belt he is forced to the conclusion that there are many factors aside from the quality of soil, distance from market, and prices of farm products which go to determine the selling price of farm land. The fact that English land values have declined fully 40 per cent, and that the per cent return to the owner is not over 1 per cent on this present valuation would seem to indicate that while there has as yet been no legislative action providing for land nationalization, such a situation is being rapidly brought about.

A second phase of the English land situation is the attempt to establish small holdings. The Small Holdings movement in England may well be divided into three periods: (1) The period of operation under the Act of 1892, which extended to 1907. (2) The period of operation under the Acts of 1907 and 1908, which extended to 1919, and (3) The period of operation under the Land Settlement, Act of 1919, which extends to date. A "Small Holding" in England is commonly accepted to mean a holding exceeding one acre and not exceeding fifty acres in size or if exceeding fifty acres, not to exceed \$250 in annual value.

The reasons put forward for the establishment of small holdings during the early days of the movement were sev-

eral, but among them the following were uppermost: To increase the food production; to maintain or increase the population living on the land; to distribute the control of property; to provide an agricultural or rural social ladder; to encourage thrift, sobriety and industry. The reasons were therefore both economic and social.

The first Small Holdings Act was passed in the year 1892. The act was little utilized, as in the fifteen years from 1892 to 1907 only nine county councils made use of it, and the total area of land acquired was less than 900 acres. Meanwhile the decline of the arable area and the decrease of the rural population in England was attracting national attention. An increasing amount of the food consumed in England was being imported. In 1870 there were 15,000,000 acres of arable land in England and 11,000,000 acres of pasture; by the beginning of the twentieth century these figures had been reversed and there were approximately 11,000,000 acres under cultivation and 15,000,000 acres in permanent pasture. It was felt that the nation should adopt some national policy leading towards the encouragement of agriculture. Social reformers were demanding a means of easier access to the land. The creation of small holdings was looked upon as one means to this end. The Liberal party which came into power in 1907 put forward a definite program of small holdings, the cry "Back to the Land" became insistent, and it was argued that if it were not possible to raise wages to any appreciable extent an attempt should be made to get land for laborers so that they could realize the full return upon their labor and the land. In 1906 a departmental committee of the Board of Agriculture reported in favor of the extension of small holdings preferably in the direction of ownership, but then came a change in government and in the new ministry were men opposed to ownership and to whom was due the Small Holdings and Allotment Acts of 1907 and 1908.

Under this act the total quantity of land acquired up to the time of the war was 192,288 acres. Early in August, 1914, the National Board informed County Councils that no more land should be acquired by purchase in view of the necessity of husbanding the financial resources of the coun-

try. Up to January 1, 1919, a total of 200,000 acres had been purchased under the act of 1908 and a total of approximately 15,000 small holdings had been granted. Of these only 68 were sold to the occupier.

The largest quantity of land under the act of 1908 was acquired in 1909, and it was apparent after 1911 that there was a gradual fall off in demand. The early practice had been to acquire comparatively large tracts of land and then move applicants to the allotments created. By 1913, however, it was apparent that the demand for small holdings from men who were prepared to move to any part of the county had been largely satisfied and that the councils had now to deal with applicants whose requirements could only be satisfied by the acquisition of land in close proximity to their present homes.

It is interesting to note that of those who applied for holdings in 1914 only 2 per cent wished to purchase, and that 24 per cent of the applications in 1913 and 32 per cent in 1914 were from agricultural laborers. The average size of the holdings provided was 13 A. in England and 30 A. in Wales. The total quantity of land acquired by the act in England and Wales was less than 1 per cent of the whole cultivated area, and it represented  $4\frac{1}{2}$  per cent of the total area held in small holdings. Up to this time the small holdings were sold or let at a figure which would involve no loss to the county council or the State, as the holdings were rented at a figure which would cover the cost of acquiring and improving.

During the period of the war there was much discussion relating to plans for the settlement and employment of ex-service men on the land. As stated in the report of 1916, it was generally agreed to be a matter of great importance to increase the production of food in England. On social grounds it was also considered desirable to have as large a proportion as possible of the population living on the land. It was felt that the demobilization of the navy and army at the close of war would afford a unique opportunity of developing agriculture.

After due consideration the Land Settlement Facilities Act of 1919 was passed. The principal features of this act distinguishing it from that of 1907 and 1908 were three:

(1) Under the act of 1908 rents had to be fixed at such a figure as would cover all charges incurred by the county council in acquiring and equipping land. The act of 1919 provided that the rent to be charged should be a reasonable one without any regard to capital outlay incurred by the council. At the end of each year up to 1926 the annual loss to the county council was to be paid by the Board of Agriculture, and on April 1, 1926, a capital inventory was to be taken and any shrinkage in value made up by the Board of Agriculture. This provision was in recognition of the inflated costs which existed at the date of passage of the act.

(2) The act authorized county councils to assist suitable applicants by making or guaranteeing loans for a part of the capital which was required to stock their holdings, a provision not included in the earlier acts.

(3) Another important financial provision of the act was that for a period of seven years the whole cost of providing small holdings should fall on State Funds. As it was felt that if the cost fell partly on the local rates, the first thought of the Local Authorities would be to safeguard the interest of rate payers. For this reason the government decided to transfer the whole cost from 1919 until 1926 to the National Exchequer.

(4) Preference was to be given to men who had served in the Forces of the Crown and to women who were certified by the ministry to have been engaged in whole time employment on agricultural work for a period of at least six months.

Under the act of 1919 two types of holdings are being provided. Self-supporting holdings from which a man may derive a living for himself and family and Small Cottage Holdings consisting of from 1 to 5 acres.

An interesting experiment was also provided for in the way of cooperative farming. The committee appointed in 1916 to report on plans for the settlement of discharged soldiers on the land, recommended the establishment of State agricultural colonies to be formed on the cooperative plan. The Small Holdings Colonies Act, passed in 1916, empowered the Board of Agriculture to acquire land and establish such colonies. Up to March, 1920, 14 Land Settlement

Estates had been acquired under the act comprising a total area of 25,294 acres. At six of these estates the majority of the land was broken up into small holdings, but there was a large central farm operated by the Board of Agriculture and in charge of a director. This central farm was to furnish horse labor and the larger equipment to the settlers at an economic price per acre for ploughing, cultivation, etc. In return, the settlers were to be employed on cultivating the central farm, and thus learn the best agricultural methods, and, at the same time, reinforce the income from their holdings by the wages so earned. On the other six estates comprising 11,922 acres the land was all farmed by the Ministry, the ex-service settlers were wage-earners only but with a share of the profits earned. This type was created with a view to meeting the case of those ex-service men who were skilled or partially skilled in agriculture, but possessed no capital or not enough to enable them to undertake the cultivation of a small holding.

In March, 1920, settlement under the Small Holdings Colonies Act was declared a failure. The ministry was authorized to divide into small holdings the area then devoted to central farms and dispense with the services of the director. The profit sharing farms were to be disposed of by sale or broken up into small holdings. By the end of 1921 all had been disposed of except two of the profit sharing farms, namely, Patrington and Amesbury, which it is proposed to keep for experimental purposes. Up to March, 1920, the operation of the six profit sharing farms had resulted in a net operating loss of \$200,000. For the year ending March, 1921, the operating loss was \$100,000. The foregoing figures not including any shrink in inventory due to decline in price.

The reasons given by the Ministry for the failure of the profit sharing farms are several. It proved that the demand from ex-service men desiring to return to the land has been almost exclusively for small holdings. The men who settled on the profit sharing farms were almost exclusively men without experience and capital. The absence of men fitted to occupy the more skilled posts of horsemen, cowmen and shepherds, made it necessary to hire civilians for these jobs thus defeating one of the objects. It seemed to be consid-



ered by the settlers that the Ministry was under obligation to give them continuous employment which was sometimes difficult to do on productive work. The cost of maintaining the equipment at a standard considered acceptable on a state owned farm was found to be much above that on a farm privately operated. Many of the above considerations applied also to the central farms on small holdings estates. There was a tendency on the part of the small holders to assume that the government should provide horse labor and other facilities at uneconomic prices, and worst of all that employment should be provided for them on the central farms at times when they would not be usefully employed on their own holdings. It also seemed that the presence on the small central farm of a director who stood in the shoes of the government, took away from the settlers the spirit of independence which was found on the statutory small holding.

As to the success or failure of the small holding settlements made since the war it is perhaps too early to judge. Certain it is, however, that the venture has proved costly to the Ministry. It is estimated that by 1926 there will have been a 40 per cent or \$40,000,000 shrink in capital value to be stood by the state. The granting of remissions and reductions of rents will increase the annual loss, which may by 1925-6 amount to as much as \$4,500,000 or more for the year. Taking the country as a whole nearly 20 per cent of the aggregate rent roll on the post war estates was remitted at Michaelmas, 1922. Other remissions were made at Michaelmas, 1921, Lady Day, 1922, and Lady Day, 1923.

The factors, however, which have contributed most to the heavy losses incurred by councils in the establishment of small holdings are, (1) the high cost of building, and (2) the necessity of providing new dwelling homes on a much larger scale than before the war. In 1908-14 only 774 new houses were erected by councils in providing 14,000 holdings, whereas since the armistice 2,600 new houses have been provided for about 19,000 holdings. The early holdings were largely provided in the vicinity of villages where houses were available in the village. Post war applicants, however, were frequently returning soldiers who wished to marry and establish a home of their home and houses were frequently not

available in the village. The heavy expenditure on buildings and the high rate of interest, resulted in councils incurring losses in 1921-22 amounting to about \$3,750,000 in England and Wales. This total was undoubtedly increased in 1922-23, but definite figures are not available. It has cost the State from \$5,000 to \$6,000 to construct a building on the average holding. This would mean an investment of from \$150 to \$200 per acre, in buildings alone, an amount often equal to or greater than the purchase price of the land. Many of these are on holdings suited only for use in growing the staple crops. It may be a question whether a small holding of this type can economically maintain a building of this cost.

So long as the state is to give remission of rents and stand the loss many of these holdings may persist, but the real test will come in 1926 when the land is turned over to the county councils, and their existence must rest on an economic basis. At that time the net cost to the state of establishing a small holder since 1919 will doubtless amount to at least \$3,500 per holding.

In May, 1923, it was reported that 6.5 per cent of the men settled since the war had left their holding because of financial or other reasons. As a whole their position in 1923 after three bad years is unsatisfactory. An ex-service man who entered into the occupation of his holding in 1919 or 1920 with a capital of \$2,500 has probably less than \$1,500 left today. Everything that he bought then has fallen in value by at least 40 per cent, and the seasons have been such that he has been scarcely able to live from his holdings, let alone save money. Another bad year and low prices will destroy the chances of many. It is also true that it has taken a considerable portion of the holders some time to settle down. It was the feeling of many that if they could not pay their way the government would see them through. "Homes for Heroes" was the slogan under which many took up the occupancy of their land, without thought of the work involved. They have been a "dismal failure," says one closely connected with British agriculture, "due mainly to the crop failure of 1921, the low prices of 1921 and 1922, and to the fact that they were purchased and equipped on a high price level". When asked to be re-

ferred to the best example of a successful small holding settlement another authority remarked, "You mean rather to the least conspicuous failure".

Whether a holding of 30 acres in size can pay out with such a large investment in buildings is questionable. It would seem too small a unit for economical arable farming. More or less of the land acquired by the Ministry has been unsuited to small holdings. It is impossible for a small holder to gain a satisfactory return by growing staple crops on a holding of from 10 to 20 acres of arable land which requires four horses or steam tackle to plow. The most successful small holdings are those having a large porportion of pasture land and following dairying or truck farming. The apparent prosperity of the small holder in the Vale of Evesham, a gardening region, would seem to show under favorable conditions the small holder will succeed.

It would seem therefore that through the efforts of the government up to 1923 there has been settled in England and Wales some 34,000 men on some 468,000 acres of land an area equal to 1.5 per cent of the total area in farms. These state provided small holdings comprised 12 per cent of the total small holdings in 1922. The holdings established previous to the war may be deemed fairly successful, while those established since the war, with the exception of a few favored locations such as those in the Vale of Evesham have proved in the main expensive to the state and unsatisfactory to the occupier. Many, however, defend the post war small holdings on a social and political ground. Following the war the Labor Party and the returning sailors and soldiers were urgently demanding that something be done for the ex-service man. The Small Holdings Acts were a definite attempt in this direction and doubtless did much to quiet political unrest.

Whether small holdings will be successful in England with the rising standard of living in the country, with its great industrial development, and the opportunities for settlement offered on large holdings in the Dominions remains yet to be seen. It is interesting to note that in comparing the years 1908 and 1922 one finds that there were on the latter year in England and Wales 10,000 less holdings of from 1 to 5 acres in size and 3,000 less from 5 to 50 acres. This in spite of the

fact that the state created 34,000 small holdings during the period.

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DISCUSSION BY DE WITT C. KING,  
MANAGING EDITOR OF THE BREEDER'S GAZETTE, CHICAGO

Professor Falconer's descriptive outline discloses that the net return on the capital value of land in England is approximately 1 per cent in some cases to sub-zero in others.

In England as a whole farming is below a break-even level, judged on the basis of the capital value of land.

The generalization that English agriculture is in a desperate condition unparalleled in its history is warranted not only by accessible facts but by the psychology of the mass of English farmers, and the anxiety and nervous experimental mood of the British government.

The three primary causes of the condition are the enormous increase in taxation, occasioned by the World War; the overwhelming predominance of a manufacturing population which demands cheap food; and an obsolescent land system under which a comparatively small number of men own all the land.

Heavy taxation, unprofitable prices for farm products, and the high cost of labor are slowly bankrupting land-owners whose sole income is from agricultural land.

In these circumstances tenant farmers and others who might otherwise aspire to own farming land are not in the market. Tenant farmers as a class do not desire to own it. Farm laborers and members of the technically non-agricultural classes who have bought small farms, representing many large landed estates which economic pressure has disintegrated, are in a serious plight. Land-ownership is not what they dreamed that it would be. When the great landed estates began to go to pieces, England's economic position was so weak and complicated that the shift of land from a few to many hands merely transferred squeezed lemons from one class to another. It was an involuntary break-up of landed feudalism at a time when chance and sentiment induced men to buy small parcels on which to establish themselves as farmers.

The dissolution of the large estates did not occur when it ought to have occurred; it took place when it was a tragic necessity. It was tragic to the sellers and the buyers.

The obvious moral to be drawn from this demoralizing climax is that the gradual, voluntary reduction in the acreage of large farms in America, for the deliberate purpose of increasing the number of American owners and occupiers of small farms, is the only rational course to pursue. Failing thus to act, we shall in due time duplicate, as, to a considerable extent, we are now duplicating, England's unhappy experience.

If reason, conscious purpose and the facts of science and history possess any value to a people in safe-guarding their future, we ought to use them before it is too late to do so.

England's present agricultural predicament is not wholly domestic in origin. England is blessed or cursed by several thrifty, industrious and highly productive small neighbors, whose standards of living are relatively low, and whose agricultural arts are practiced by intelligent, organized, homogeneous peoples, who, under necessity, have developed the immeasurably useful subsidiary art of cooperation.

Professor Falconer makes no allusion to cooperation, which, so far as Denmark in particular is concerned, bears a relation of some importance to England's land situation. I am tempted briefly to touch upon some aspects of this obsessive text.

The necessity for cooperation amongst farmers is brought about by the ever-increasing sharpness of competition amongst themselves, in their own country and with farmers in other countries. Cheap ocean transportation has converted the farmers of the world into competitors with one another in the world's food markets. Producers of certain foods which can most economically be grown in certain small areas are in a position, like some classes of fruitgrowers in California, to do business and improve their business on a cooperative basis. But even in their case, they are in competition with producers of all other foods, so that, eventually, the world's effective demand for food products establishes prices, and deflates any food-producing industry which, through cooperation or special advantages, is able to secure for a few years highly profitable prices for its output. Successful cooperation is self-destructive, by virtue of the fact that it leads to excessive production, unless it be controlled; and local, regional or national control would break down unless it were an integral part of organized international control. Since the overwhelming ma-



jority of the people of the world are neither food producers nor land-owners, it is clear that any attempt internationally to control the production or flow of food would be aborted by all democratic governments.

America is passing out of its pioneer stage of self-reliant individualism. Our forefathers were in competition with natural forces hostile to the subjugation of the earth's land surface. Having "conquered" the land, the next phase of agricultural development forced them into competition with one another as surplus food producers. Roughly speaking, one generation fights and struggles to gain the possession of land from forests and deserts, and the next fights and struggles in order to hold the land. Competition, therefore, goes on its inexorable, ruthless way. When it begins to "hurt" its weaker victims, who are always in the majority, the instinct of self-preservation asserts itself in the form of a protective or defensive alliance on their part; in other words, economic necessity invents class cooperation or collectivism, which, in plain English, is political socialism in motive and object.

Individualism is a complex of habits developed by the experience of a people who open and "settle up" a new country. It is the egotistic attitude of the man who "paddles his own canoe," and holds that "every tub must stand on its own bottom." We are still highly individualistic in the United States, but we are beginning to succumb to the strain which competition imposes upon us. Economic as well as military warfare fatigues or exhausts men until they are driven to the adoption of an "armistice." This "armistice" bears the sugar-coated name of "cooperation" or "collectivism," which sounds much more humane and brotherly than "armistice." The bitter truth is that all of us are compelled to do whatever we can as individuals or class-conscious groups, with or against other individuals and groups, to ensure our own survival in a world whose agricultural lands are limited, and whose population is approaching the point at which the production of food has got to be both increased and cheapened to the consumer if the borderland masses are to be saved from starvation.

England's success as a manufacturing exporter has been achieved at the expense or to the detriment of its agriculture. The rapid rise of the United States as an exporter of manu-

factures is one of the primary causes of agricultural depression at home. When the majority of a country's people shift from agricultural to industrial and manufacturing arts, one of its cardinal requirements is cheap food. It will obtain its food in the cheapest accessible markets. The effect of this course upon domestic agriculture may be deplored by its economists, sociologists and some of its politicians, but what can they do to change it?

Manufacturing is more profitable than farming, first, because its controllable or constant output is on a quantity basis at production costs which predetermine selling prices in domestic and foreign markets; and, second, because competition, in many cases, is a popular fiction and not a fact.

The rewards in manufacturing are greater to officials of manufacturing companies and to stockholders, salesmen and laborers than in farming. Therefore, manufacturing in every modern civilized state eventually not only dominates but penalizes its agriculture. I see no possible change in this suicidal and apparently fated life cycle of nations until they exhaust and ruin themselves or until the habitable areas of the globe shall have been saturated with domestic and foreign manufactures. But nations, like most individuals, do not know that they have enough until they have too much; the victims of indigestion commonly are chronic cases before they seek a remedy.

It is possible for the United States to live and enjoy a long life; it might and should endure longer than any other commonwealth in history.

In the days of its sensitive youth, this country burned with righteous indignation at "taxation without representation." In its maturer years—today—it is taxed to the "quick." Land-owning farmers in particular are bearing an enormous burden of taxation. It is much more than their share. If modern taxation is not tyranny, then I should say that the taxation against which our forefathers rebelled was a pleasurable titillation.

Agriculture here, as in England, is paying out so large a total in the form of taxes that farmers ought to be in organized rebellion against existing methods of taxation. What are our agricultural economists doing to enlighten farmers in regard to this subject?

Many a tenant-farmer in this country is beginning to express a wise indifference to the ownership of a farm. He knows that taxation falls heavily upon farms and the improvements and stock on farms. He knows that if he possessed \$15,000 in cash he would hesitate a long time before he would invest it in a farm that could be purchased for that sum. He knows that the \$15,000 invested in bonds or mortgages would yield him \$750 a year, and that he would be fortunate if on a \$15,000 farm he made a living and obtained enough money besides to meet his operating expenses and taxes.

The incentive to buy a farm in many regions of the United States is no longer combined with the practical certainty in the buyer's mind that it is a good business investment. There is a stronger incentive at present in the United States, as in England, to sell than to buy farms. "Land-hunger" has assumed a new form; in the modern world people, as of old, desire access to land, but to millions of them it is known to be an expensive luxury to own land. Possessing this knowledge, born of experience, they have neither the inclination to own land, nor the capital with which to buy and operate it. ("Capital," as here used, might well include personal or social ability to make farming pay under modern conditions.) Land, therefore, is drifting into the ownership of an ever-decreasing number of men, many of whom have other sources of income. Farms conducted by owning, occupying farmers are relatively scarce, in all our best agricultural areas. Farming as a hobby by wealthy business men is increasing. Both bankers and mortgage-carrying farmers have lost millions of dollars in the enforced transfer of farming lands from the occupying class of owners to absentee landlords. If the landlords cannot sell at acceptable prices, their only alternative is to rent. More than 40 per cent of Illinois farmers do not own land. Tenancy is increasing ominously in the United States. Peasantry is a fact here and now. It is not widely recognized as such because it lacks some of the traditional, sordid aspects which identify it in Europe.

Thousands of men, however, who desire to own and use land are controlled by what one may loosely term the homing instinct. They are mostly foreigners or the American-born sons of foreigners. To make farms pay is incidental to making homes for themselves on land. In an ecological sense,

these people are land parasites, whose industry and low standards of living ensure their economic survival. I do not use the word parasite opprobriously. Their large number is increasing in this country. Our native farmers, still trying to maintain high standards of living, are in competition with them. The outcome is obvious. Land-ownership, therefore, is tending toward concentration in the hands of three classes: 1, foreigners, whose habits, customs and ideals are alien to our own. 2, Land-poor landlords, many of whom would sell if they could. 3, Wealthy hobbyists.

The effect of the land uses of these classes upon American farming as a life and vocation is demoralizing and degrading. The beauty, poetry, freedom and high cultural efficacy of American farming are little by little degenerating into the crassness, prose, servility and cultural negativity with which an unbridled industrialism is denaturing human life.

So long as commerce and cash are the dominant objects of a state, farming in that state will decline until it loses its value and uniqueness as an art of living, and descend to the level of a degraded craft, dully pursued by peasant-minded people.

But trade or commerce is essential to the development, stimulation and maintenance of agriculture. Our civilization is either the flower or the cancer of our land-based commerce. Domestic and foreign trade has expanded primitive pastoralism into highly developed agricultural arts. Farming as we have it is dependent on commerce, and the keystone of commerce is farm land. These mutually dependent industries will go on together or they will together go to pieces. In recent years commerce has gone prosperously alone. It must wait for and help agriculture to "catch up" with it. The relations between the two ought to be technically well known and popularly exploited; but they are not.

A new definition of "progress," in terms of human life and welfare, ought to be predicable upon the facts of economics. Is it? Or shall we pass the question on to sociologists, preachers and sentimentalists, who don't know economics? What is more absurd, futile and human than academic specialism which values facts as ends in themselves?

DISCUSSION BY B. H. HIBBARD  
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The most impressive thing about Professor Falconer's paper is the light it throws on the relation of land values to the influence and attitude of the State. The capital value of land in England is declining. So it is, or has been, in the United States due to the collapse of prices of produce in 1920. The same influence of deflation on values is seen in England, but added to this are several others. First comes the results of rising taxes and the increased rates of interest, both effective in dragging down land values. Added to these powerful forces is another one fully as effective and with the added trouble that it is harder to gauge. This is the attitude of the government respecting the security of landed property. The new forces, now in power, do not look favorably upon land as the subject of private ownership.

The present views of the government on the question of private property in land, and indeed respecting all private property, recalls the opposition of the propertied classes toward the extension of the franchise a century ago. During the arguments relative to the passage of the Reform Bill of 1830 it was contended that should the franchise be granted to the laboring classes they would use the resulting political power to dispossess the propertied class of their goods. As the decades subsequent to 1830 came and went it was many times remarked that the fears were groundless, the laboring people not wishing to take that to which they had no right. The past ten years leads one to suspect that the anticipated troubles were merely postponed and are now about to take shape. Probably the day of wrath may not prove to be any particular calendar day of twenty-four hours, and neither is it to be expected that all private property will be confiscated. It does look, however, as though the time had arrived in England when the populace would no longer content itself with taxing income, but would demand that out of accumulated wealth a portion should be handed over to the common fund.

Very naturally this levy will fall first and hardest upon the landlord class. For one thing this class, small in num-



bers, has lost its old time power. Even its social distinction is no longer unquestioned. So many circumstances have contributed to the impoverishment of the landlord class, at least to the cutting down of their income from the rentals of their estates, that now many of them are glad to salvage whatever is possible out of the wreck.

The question is often asked why England has so little intensive farming, for example, so few truck farms. Every morning boat loads of vegetables arrive from Holland. The answer is that England is industrialized to such an extent as to make farming or truck growing unpopular. It may be that growing vegetables for the market might be more profitable than working in a machine shop, but it is at least not as attractive. The shop provides the opportunity of a designated amount of pay, to be received regularly. Moreover, the hours are shorter than those of the truck grower. The demands on the members of the family other than the wage earner are distinctly less. A whole family in Holland, working long hours, may earn a good living on a small piece of land. The Englishman may not do any better working for wages, or a salary, but at least he has hopes of doing so, and prefers the hazard of unemployment to the drudgery and exacting attention of the truck grower. In his own estimation he has risen a stage above the man who digs his living out of the soil.

No longer land-minded, the English laborer is now ready to demand of the landowner that he now stand and deliver into the national coffers for social use the wealth which as he views it was socially, not individually owned. Thus a species of single tax seems to be coming into its own.

## THE COMMODITY COOPERATIVE ASSOCIATION— ITS STRENGTH AND WEAKNESS

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Perhaps the first thing in order is a definition of the term "commodity cooperative." I shall not attempt fine distinctions, but shall try to isolate, so to speak, a type of organization which has come into general favor quite recently, which is being widely promoted, and which possesses a combination of elements of weaknesses and strength to some extent peculiar to itself. Usage is not entirely clear. For the purpose of this paper I shall define a commodity cooperative association as one dealing with one commodity or a narrow line of logically related commodities, and representing producers in a relatively large area, the size of the area being determined either upon the basis of the wholesale market to or through which the commodity moves, or by a natural boundary of the producing area. This type may be contrasted with an association which aims to handle a wider line of goods, and/or which operates as an independent unit in a local market.

Perhaps a few examples will bring out a little more clearly the type of organization I have in mind. I might begin by citing the Burley Tobacco Growers Association of Kentucky, Indiana, and Ohio. There is in adjoining or slightly overlapping territory, the Dark Tobacco Growers Association. Both are what have come to be called commodity associations. Both are organized on the basis of the producing areas of specific commodities, for the two types of tobacco are quite different and are grown by two distinct sets of producers. I believe they are, however, sold to about the same class of buyers. A very short distance away there is being planned a third tobacco growers' association, distinct from the other two, and also a true commodity association. I refer to the cigar leaf section of the Miami Valley in Ohio. There the commodity is so distinct from the Burley and Dark tobaccos as actually to pass through the hands of a different set of dealers and manufacturers, and is also grown by a separate and distinct set of producers. Moreover, each group is organized or organizing with *the producing area* rather than the local market or a political boundary as the basis.

## THE COMMODITY COOPERATIVE ASSOCIATION—ITS 107 STRENGTH AND WEAKNESS.

Again, the California Fruit Growers' Exchange is in this class. Here we have an organization which handles an entire class of goods—citrus fruits, mostly oranges and lemons, but including grape fruit and a few other kinds of citrus fruits. It includes most of the citrus fruit from an area over 500 miles in length. But all of these products move through identical trade channels and all are often grown by the same producer.

Many of the cooperative associations which I have ruled out by definition and example are really on a "commodity basis." The Bureau of Agricultural Economics recently published the statement that of 8,135 cooperative organizations reporting, 83 per cent "might be considered as commodity marketing organizations." (Agr. Coop., Nov. 19, 1923.) Most of them are, however, strictly local in character, and are organized about the local market. Such are the cooperative grain elevators, the cooperative livestock shipping associations, and the cooperative creameries. A departure from this strictly local unit idea is the county unit livestock shipping association developed in Ohio and Illinois a few years ago. But even this limits an association to a relatively small area restricted by local political boundaries rather than by logical commodity or wholesale market boundaries.

The "commodity cooperative" may be of a number of forms; it may be of the centralized direct-membership type, or of the federated type. Moreover, it may have capital stock or be a membership form of association. I have simply tried to define the term so as to include a rather typical class of organizations which has developed rather rapidly during the past few years, although a few, including the California Fruit Growers Exchange, The American Cranberry Exchange, and the Sun Maid Raisin Growers, have been in existence for many years.

### Weakness

I shall attempt to analyze briefly some of the elements of strength and weakness of the type of organization I have just described, taking up first the elements of weakness.

1. *Overemphasis on price.*—What has seemed to me to be the biggest point of weakness in such an organization is the fact that once it acquires a considerable degree of control of

a commodity, pressure is brought by members to induce the association to attempt arbitrary price fixing. In fact there are numerous instances where price control has been so strong a motive for organization, and has been so generally presented as a main goal, that for these it constitutes an element of real weakness for the future. It is undoubtedly true that one of the outstanding services of this type of organization is its influence on prices, either by raising prices, or by stabilizing them. However, the emphasis placed on price, increases the already too strong tendency of the individual farmer constantly to compare the price obtained through his organization with the price obtained by the man who is selling through some competing agency.

Comparisons of prices of different years when price levels are widely different are dangerous and misleading if proper adjustments are not made. They are quite sure to lead to erroneous conclusions on the part of farmers and others who do not realize that prices are relative and not absolute. At the same time such comparisons destroy the confidence of discerning people in other statements issued by those issuing such misleading price comparisons. Within the past few months several organizations have issued unwarranted price comparisons purporting to show the influence of cooperation on prices in their particular cases. These organizations happened to have been formed during or just prior to the war period and naturally a comparison of five or ten years' prices prior to organization with the average of prices, since organization, or even with current prices, makes a good showing, but these comparisons mislead those who take such statements at their face value, and are certain to cause trouble later.

Another point of importance in this same connection is the fact that attempts to control price, frequently antagonize the trade through which such products must reach the consumer, and in fact antagonize the consumer who always has been most bitterly opposed to any sort of price control. The raisin growers know only too well what such antagonisms may mean.

The result of this emphasis on price may therefore result in disaffection within the ranks of a given organization, hamper the movement of the product through the trade channels, lead to deliberate attempts to stimulate production outside of the organization and may also result in unfavorable legislation.

2. *Eagerness to attempt new and untried methods.*—A second point of weakness in this type of organization is the eagerness on the part of members, or of officers recently come to power, to attempt new and untried methods of organization or marketing. The management of practically every such organization finds itself besieged by those who urge short cuts in the marketing of its products. The California Fruit Growers Exchange, for example, particularly in its early days, was constantly urged to sell direct to consumers or at least to sell direct to retailers. Various fruit growers organizations in California have within the past year been urged to cut out the broker. Various dairy organizations have attempted uneconomical manufacture of by-products in order to rid their organization of the burdensome surplus, adopting policies which private business men would hardly have considered.

3. *Tendency toward extravagance and inefficiency.*—Extravagance and inefficiency are very likely to creep in, once an organization becomes powerful and has in its control vast funds, with the possibility of deducting from each of a large number of producers' returns, a relatively small amount to finance expanded activities. A number of examples might be cited where such a result has brought organizations to ruin, and at least two large organizations have during the past year gone through the spasms of reorganization largely as a result of the extravagance and inefficiency which had crept into the various departments.

It is a well recognized principle of business that success depends in a large measure upon an adequate volume of business. But this is a relative matter. Many of the commodity cooperative associations have started with a volume of business never dreamed of by even the most successful of private dealers or local cooperatives. They can have no complaint on the score of lack of business. But the tendency to let expenses climb upwards to an unnecessary degree is just as serious a menace as is the small volume of business done by many of the local organizations.

Ways will undoubtedly be found to reduce many of the expenses apparently inherent in the commodity type of organization. The erection and operation of local receiving plants, for example, have in some instances been unduly expensive in



outlying districts. To remedy this difficulty several California organizations are now cooperating in the use of common receiving plants at points where one or another has not enough business to operate alone. Similar cooperative relations have been worked out by the Burley Tobacco Growers Association and the Dark Tobacco Association in the areas where the two types overlap.

4. *Too rapid growth.*—Many of the commodity organizations of the present day have been built too hastily for real solidarity. They have been, so to speak, superimposed upon a highly expectant group of producers, most of whom had very little real understanding of marketing problems or of the obligations which follow their simple act of affixing a signature on the dotted line. A carefully planned campaign on the order of a series of revival meetings has built up enthusiasm to a high pitch during a period when price or other conditions have been unusually bad, in some cases so bad that things could hardly be worse. Naturally, with reasonably efficient management, such organizations show gratifying results. A real strain, however, is certain to come as soon as another price decline comes, particularly if the organization is not so formed and so managed as to educate its members, to keep them functioning as such, and to keep their attention focused on other benefits than the benefits of increased prices.

It should be recognized, of course, that slower organization might make progress more difficult and certainly more tedious, as well as, we might add, less profitable to the professional organizer. The farmers' elevators, livestock shipping associations, and cooperative creameries may ultimately come within the class of organization here under discussion. When they do, they will probably be in a much stronger position than they would have been had giant commodity associations been formed in the first place—granting that such herculean tasks could have been accomplished in the first instance. However, if the commodity organization is based upon reasonable expectations, is preceded by a careful analysis of the problems to be met, and is organized and managed along right lines, such rapid growth may not be a serious handicap, and should indeed, be an element of strength. But I have used a lot of "ifs."

5. *Difficulty in meeting competition.*—A fifth weakness arises out of the difficulty met by the commodity cooperative

association in meeting the competition offered by independent dealers with what we may call a more logical combination of enterprises. I have in mind such a situation as that obtaining in the case of a group of California dried fruit associations. It is logical for an independent dealer to handle practically all dried fruits, and perhaps even canned goods, since this whole group of commodities moves through practically identical trade channels, so far as wholesalers, jobbers, and retailers are concerned, and all are purchased in varying amounts, by the same consumers. Such an independent dealer, moreover, handling a group of closely related commodities offers the keenest kind of competition for the cooperative association, for he may sacrifice profits temporarily on one commodity while using it as a weapon, hoping to recoup on others. This sort of competition may be dangerous even when an association controls a large percentage of a given commodity. Under such conditions a cooperative association can counteract such competition only by education and by "sitting tight" until the cheaper goods have been absorbed by the market. One typical association, the California Prune and Apricot Association, has an element of weakness in the very fact that it has even two commodities combined. In this case there has been a distinct, though not dangerously prevalent feeling of dissatisfaction on the part of growers of apricots, that their association is pushing prunes at the expense of apricots, and that the apricot men might do better if they withdrew and formed an organization of their own. Here, however, so many men grow both prunes and apricots that trouble over this can hardly become serious. Most of the members also realize that the two commodities should logically be combined since they are both sold in dried form through the same trade channels and to the same classes of housewives. There has also been frequently discussed the possibility of combining three or four California dried fruit associations with the idea of effecting distribution more economically. However, even though it is generally recognized that strict adherence to the commodity idea is to some extent uneconomical, the human factor makes it desirable to adhere pretty generally to that idea for the present, at least.

6. *Remoteness from members.*—A most serious weakness in many of the newer commodity marketing associations is

the failure to keep the members functioning as such. Too often the individual member speaks of the association as a remote agency of which he knows relatively little and whose affairs he does not comprehend. This is particularly true of those associations which have a central membership and does not usually apply to those made up of federated locals. Strenuous attempts are being made to overcome this weakness. The California Peach and Fig Growers Association has developed a plan of educating its members through Farm Bureau centers. The Sun-Maid Raisin Growers are working on the same problem through an advisory council so organized as to enable the association management quickly to reach most of its members or to permit members quickly and forcibly to reach the Management. At least two large associations have formed women's auxiliaries. Practically every large organization now has a house organ. It may be doubted whether some of the latter are really accomplishing results, because poorly edited and because they so obviously give only one side of the story and may therefore give the impression of trying to hide something.

7. *Over-dependence on contract.*—Most organizations of the type here under discussion are based on contracts with the growers. These contracts, sometimes running for a period of years, are often cited as one of the elements of strength of such organizations. I quite agree that a binding contract is essential. It would seem, however, that too much emphasis is sometimes placed on the efficacy of the contract and not enough on the holding power of superior service. A long time contract in a cooperative association is of no avail if a large proportion of the members decide they do not want to cooperate. Instances might be cited where even though a contract was in force, cooperative associations have not functioned or have simply ceased to function because the directors were convinced that the members did not wish to cooperate. The situation is much like that of the man who resolves to give up smoking. He may change his mind and resume smoking without so much as a formal notice to anyone. Cooperation is a matter of desire and not of coercion. A contract will hold in line a relatively small proportion of the members should they be tempted by high prices offered at opportune times, and may even prevent a stampede by dealing severely with the

first few deserters. But the dependence placed upon legal coercion by some of these organizations constitutes an element of weakness. After all is said and done superior service must be the basis of success.

### Elements of Strength

1. *Singleness of purpose.*—The first element of strength I should mention is that of singleness of purpose. It is a very noticeable fact in organizations interested in too wide a range of commodities that the members can seldom be kept interested. In an organization combining, for example, grain and livestock, the director who is particularly interested in livestock, may literally fall asleep in a directors' meeting at which certain technical grain marketing matters are under discussion. Similarly, the grain man is likely to fall asleep during a discussion dealing wholly with livestock marketing matters. Moreover, he can scarcely be expected to take intelligent action relative to something outside his own vital interests on the basis of the meagre knowledge he is likely to acquire during a brief directorship. If this applies to the directors, how much more will it apply to the ordinary member who can seldom know all the steps involved in the reasoning that led his directors to given lines of action.

The commodity organization on the other hand is made up of men who are vitally interested in the specific commodity under discussion. There is, of course, a possibility that even a commodity organization may be made up of people with whom the particular product handled is not a vital matter. One of our large egg marketing organizations, for example, was originally made up of very large producers to whom the marketing of eggs was vitally important. Once it had attained success, however, there was an influx of members with whom egg production was distinctly a side line. This condition became so noticeable that in a recent reorganization, provision was made whereby the voting should be done on the basis of eggs contributed. This was done in order that the control might not pass into the hands of those who were only casually interested and who for that reason had not made a careful study of the business.

2. *Opportunity for development of experts.*—A second element of strength is that the concentration on a single commodity offers better opportunities for directors and other leading members to become experts in the problems affecting the successful handling and marketing of the product. In most cases really efficient marketing involves an intimate knowledge not only of production and handling, but of the keeping qualities, methods of storage, methods of distribution, and of the peculiarities of consumers' demands for a product. It is too much to expect that a farmers' organization can so organize as to maintain an institution which has in it really expert knowledge on a wide range of commodities. I have in mind not the hiring of management but the development of a degree of expertness within the membership.

3. *Risks borne by the commodity.*—A third element of strength is the fact that in the case of the commodity organization, market risks are borne directly by the commodity concerned. In the business of a private dealer it is very desirable that he have a number of lines in order that he may distribute market risks more widely. A loss on a season's bean crop may be offset by unusual profits in the grain business, and vice versa. Similarly, a loss on peaches may be offset by unusual profits due to a favorable season in grapes or cantaloupes. This sort of combination, however, would be a decided weakness for a cooperative organization, and hence the fact that under the commodity plan these risks are reflected back to the producers of the particular commodity on which the loss occurred is a real element of strength. It is well known indeed that price fluctuations seldom take place uniformly for different products. The cattle market may be very good during a time when the lamb market is very bad. Recently the lamb and wool market has been away ahead of the cattle market. We have not yet reached the stage of development where one group of farmers will willingly and unselfishly permit profits made out of an unusually favorable market for their own particular commodity to be shared by other producers whose market was unusually bad.

4. *Ability to bargain.*—A commodity organization, especially one with binding contracts, is usually in a much stronger



bargaining position than is an organization handling a greater number of products, and having but a small proportion of each of a number of commodities under its control. The commodity organization can deal with greater certainty since it is quite sure to have more complete knowledge of the activities of its competitors and of conditions of supply, demand, and movement. In other words, it can "merchandise," to use a current term. Moreover, a commodity organization which has reached the stage where it controls through contracts a large proportion of the product can "lay all its cards on the table" with regard to conditions of supply and movement and thus ultimately establish a high degree of confidence on the part of the trade.

5. *Influence on quality.*—Another element of strength is a fact that the commodity organization is in an unusually favorable position to influence quality. Through the establishment of uniform grades and through the use of standard containers, it can materially improve the marketable quality of its products. This is particularly true as the organization develops and uses a pooling system which reflects the proceeds of sales back to the producers in such a way as forcibly to call their attention to the returns for the various grades of product supplied. Many of these organizations maintain extensive production departments in order to educate their producers on methods of improving quality.

6. *Ability to develop markets.*—The ability to develop new markets is another element of strength in the commodity organization. If it has in its control a sufficiently large share of the product it can afford to do advertising, and rest assured that it will get the major share of any benefits accruing therefrom. It can afford to establish new agencies in markets previously untouched, and to build up weaker markets in a way that would be impossible for a smaller organization or for one dealing with a wider range of commodities. The Sun-Maid Raisin Growers, for example, are this year spending several hundred thousand dollars to develop European markets. The Tillamook Creameries Association has accomplished much along this line even though it controls a very small percentage of the country's cheese.

7. *Can secure more efficient management.*—Finally, a large commodity organization can afford to hire more efficient man-

agement than can a smaller organization. It can afford to pay salaries which will attract men who have already become experts in dealing with the problems affecting the particular commodity in question. This point is of great importance because in the last analysis practically all failures of cooperatives have been due to inefficient management. This is particularly true if we accept it as a fact, that one feature of management consists in clearly pointing out difficulties or possibilities in such a way as to convince a board of directors that given policies are dangerous, or are desirable as the case may be.

It may be well in closing to strike a balance, so to speak, of the relative weights of the elements of weakness and strength. On the whole it seems to me that the greater weight is on the side of the elements of strength. I do not mean to convey the impression that all cooperation should be placed on this basis. I recognize what I believe to be a fact that some of the elements of strength are present also in some of the organizations I have ruled out by definition. Such, for example, are the farmers' elevators and livestock shipping associations. There probably would be less cooperative marketing of grain and livestock than there is today had early attempts been centered on the formation of giant commodity cooperatives, instead of on the formation of many locals. Moreover, much good has doubtless come from these locals. Their next step should probably be toward a more definite affiliation with central selling organizations. It is important, however, that some of the above elements of weakness and strength be borne in mind in considering the plan of organization and operation to follow, in order that the points of weakness may be fortified and the points of strength made stronger.

The commodity type of organization is probably here to stay. It has found popular favor and a place has been created for it in our legal structure. It is a new thing, however, boldly conceived and daringly executed. The pitfalls ahead are very real, the elements of strength largely potential. Failures there will certainly be because of the ever-present element of human frailty. Whether the percentage of failures is to be large or small will depend largely upon the wisdom and skill with which the leaders of the cooperative movement administer the trust that has been given into their keeping.

THE COMMODITY COOPERATIVE ASSOCIATION—ITS 117  
STRENGTH AND WEAKNESS.

DISCUSSION BY CARL WILLIAMS

EDITOR, OKLAHOMA FARMER-STOCKMAN

Professor Erdman's paper is a keen analysis of the strength and weaknesses of the commodity cooperatives, and shows on his part a fine understanding of the problems of cooperative marketing as they have been developed in California. That state has been the testing ground for farmers' marketing movements. There the "trial by error" method has necessarily been given full play over a long period of developing years.

Commodity marketing came out of California. The experiences of California farmers have been made the basis of a national movement. The principles which have led to success in California have been carefully studied by those who would emulate that success. The mistakes which have been made in California have been equally profitable to the followers of the California theory in other sections of the United States.

Let us clarify our definition of commodity marketing to harmonize with the thought of the national cooperatives themselves. In their minds, commodity marketing means organization by a single farm commodity wherever that commodity is grown within the practical limits of successful organization. Applied to cotton, as an extreme example, it means the organization of cotton from a completely national viewpoint, necessarily accommodated, of course, to the legal limitations of state lines for operating purposes, but with state organizations completely united on policies and methods of practice. Here we have a quite different situation from that of the Sun-Maid Raisin Growers, for example, which is by comparison organization both by locality and by commodity. The conclusion therefore is that each commodity has its own problems of organization and operation and that one cannot be completely solved by the experience of another although the basic principles remain the same.

Every commodity cooperative is a business institution with four departments—buying, accounting, processing or grading, and selling. Fundamentally there are but two departments—buying and selling. On the intelligence displayed in the management of these departments the institution succeeds or fails.

The buying department includes, of course, the securing of memberships, the delivery of the product and the loyalty of

the members to their own organization. Here lies the greatest strength and the greatest weakness of practically all the commodity cooperatives. It is the greatest strength because the fundamental purpose of the organization is to accomplish exactly what the farmers themselves want, which is a better price for the product. It is the greatest weakness because of the difficulty of educating the membership to the business principles involved in the attainment of the object.

The member is prone to think of price in terms either of arbitrary fixation or of comparison with the receipts of the non-member. Prices may be fixed, it is true; but only with full consideration of the statistical and commercial positions of the product. Sufficient degree of control will permit a price to be named which will move all of the product within a given time. That might be termed price stabilization. Sufficient degree of control may also permit the cooperative to obtain free play of the law of supply and demand, thus raising the price level which the grower receives. In either process the price to the non-member is also affected and all farmers benefit by the activity of the cooperative. It is hard for the member to understand these economic limitations of the marketing movement.

One reason for the relative lack of understanding of these things on the part of the member is the fact that in original organization campaigns more attention has been paid in many cases to getting signatures on the dotted line than to making cooperators. Here is a recognized mistake which is in process of correction. One cotton association, for example, will now receive new members only when the applicant is vouched for by three old delivering members; and the voucher must certify that in their opinion the applicant is good cooperative material and is not hampered by mortgage or otherwise to the extent that he will be unable to deliver his crop.

The member now on the books of a commodity cooperative still needs education. He is getting it through his house organ, through field service contacts and, most of all, through informal local organizations in which the women and children of the farm family play a most important part. Practically all of the commodity cooperatives now recognize the absolute necessity of a right understanding of the business problem on the part of their members. The fact that they have recognized

this necessity *before they had to give it recognition* may be taken as evidence that the greatest known weakness of commodity cooperative marketing is being turned gradually into the greatest element of strength.

In the selling department of the organization the problem again varies with each product. Some products justify the farmers' association in carrying it direct to the manufacturer or the ultimate consumer. Others are of such a character that receiving, processing, grading and selling to the old-line wholesale or distributing private agencies are alone justified. Again here is a process of education for the grower. He must be made to see that, while his organization has the right to engage in any step of distribution it desires, it should not so engage unless it can do the work more efficiently or more economically or both than the private dealers and distributors now do. This point is fairly well understood by the members of the newer national cooperatives, and is coming to be better understood as education proceeds.

In matters of extravagance and inefficiency Professor Erdman is a better judge than I of the experiences of the California associations as they progress in power and degree of control. The experience to date of the newer cooperatives, which it must be admitted do not have the age of some of those in the far west, is that extravagance and inefficiency are more likely to show themselves during the earliest years of experience rather than later. In the beginning more mistakes are made, and these mistakes are often costly ones for which the members pay. In the beginning there are sometimes job hunters who ask, and occasionally get, fat salaries. In the beginning experts are hired who do not always prove to be experts worth the money they are paid. My own experience in cooperative marketing to date indicates definitely that in most cases these things are corrected as discovered, and that each successive year of operation results in greater relative economy and in greater relative efficiency of the organization. That is, a steadily increasing share of the gross price received by the association goes into the pockets of the farmer-member as net proceeds for his crop. Again, in this as in other things, the great national cooperatives are building on the foundation of both mistakes and successes which has been laid by the California pathfinders.



Professor Erdman does well to call attention to the dangers of too rapid growth. The present job of many cooperatives is to consolidate their gains. The fact that they recognize this need is an indication that it will be met. Incidentally, the "professional organizer," so called, is in bad odor among cooperative leaders not only because of his high-power methods but also because it has been found that farmers can be led to organize themselves and their neighbors much more cheaply and efficiently, and with a greater educational foundation for the organization itself.

Professor Erdman's fifth point, that of difficulty in meeting competition, is not universal in its application to commodity cooperative marketing. The trade channel is the determining factor. Dried fruits meet the problem. Cotton, tobacco and wheat do not. In any case it can and, perhaps, should be solved by working agreements between allied commodity cooperatives without any actual union of the membership thereof.

To all the elements of strength mentioned by Professor Erdman I heartily subscribe, and I would add one other. I think it is fundamental to all.

It is that the plan of commodity marketing itself is, in essence, exactly the same as that on which every successful city business has been built. Our great corporations have grown because of their adherence to certain business principles. These principles are: Organization by commodity, otherwise called specialization; centralization of control of volume; the pooling of earnings in proportion to investment, and the employment of experts in technical management.

The degree to which these principles are observed has determined the degree of success of every city business corporation of note in America. The degree to which they are observed in cooperative commodity marketing enterprises operated by and for farmers will have exactly the same relative result.

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DISCUSSION BY O. B. JESNESS,

UNIVERSITY OF KENTUCKY

The title of Dr. Erdman's paper has made it necessary for him, for the purpose of his discussion, to define a "com-

modity" association. Personally, I regard the avoidance of the use of this term desirable. Most all of our marketing organizations are commodity organizations in the sense of handling a commodity or class of commodities. Would it not be better to forget the term "commodity" and to describe marketing associations as "local," "federated" or "centralized?"

There is also in evidence a tendency on the part of some people to talk as though their own particular type was the only simon-pure cooperative plan. We should discourage any such narrowing of the term "cooperative" as there is no justification for it.

I am in hearty accord with Dr. Erdman's reference to the overemphasis of price. We need a more general appreciation of price-making forces on the part of promoters, members and, in some cases, the management of cooperative associations. One hears high-sounding talk of "orderly marketing" and "fair price" and cannot help but suspect that the person doing the talking often has only a hazy idea of what such terms really mean. In some organization movements, members believe that they have price control within their grasp. The futility of relying on organized price control of an arbitrary character has been demonstrated by various organizations, some prominent examples of which are in Dr. Erdman's home state, but still the suggestion is frequently made that what the farmers need to do is to organize and get cost of production plus. If farmers are led into organizations with this as a bait, if the members believe that their organization has price under its control, what will be the result when it is discovered that this is not the situation? Would it not be desirable to pave the way by driving it home to members that prices depend largely upon factors outside the control of the organization? The speaker believes that there is need for some constructive educational work in this field. When we talk orderly marketing let us also emphasize the fact that orderly production must go hand in hand with a program of orderly marketing.

While I am on this subject of education I would like to raise a question with regard to the educational and publicity

work of some cooperative marketing associations. It is human nature to put the best foot forward and to direct attention to the silver lining. It seems to me, however, that some organizations overdo this. They spend so much time telling how fine they are that there is not much opportunity left for real education in the problems of the enterprise. There is need for a greater willingness to lay the cards on the table at all times. The management should appreciate that the members not only have the right to know the facts but that it is highly desirable that they do know the exact facts at all times.

I believe most students of cooperative marketing developments agree with Dr. Erdman that such movements may develop too rapidly. Success is not dependent only upon organization plans and procedure. It is also dependent upon the members who often are the weakest part of the organization. You cannot make high class cooperatives out of inexperienced material over night. This is especially true when the process is involved with too many promises of what cooperation will do for them with but scant mention of its limitations and of the members' responsibilities.

Some of the recent developments have become so imbued with their size that they have at times forgotten the importance of economy and efficiency. Salaries in some instances have been established on the basis of volume of business rather than qualifications of the employed. High-class help is necessary but high salaries do not bring that character of help by themselves. There must be judgment in selection. Ability must be sought and be paid for as such. Some organizations have found a somewhat general reduction of salaries necessary while if proper foresight had been employed, this would not have been necessary. Such an experience never leaves a very good taste in the mouths of either the employers or employees. Then, there is the ever-present danger of political and other influence creeping into the selection not only of help but also of the directors. The lack of close contact between the members and the association which exists in the centralized organizations is a factor to be considered.

Dr. Erdman's illustration of grain and livestock under his discussion of the question of "Singleness of Purpose" was not the best choice in view of the fact that grain growing

and live stock raising, at least over a large part of the country, involve the same growers and consequently a director of an organization would be interested in both. A more important objection to combining unrelated commodities is that their outlets are different and consequently different training of management, different market contacts and different methods are required.

I would emphasize the importance of the development of quality and uniformity even more than did Dr. Erdman. This is a concrete service which cooperative marketing often can render. This is the type of service which is at the basis of the success of many cooperative enterprises. Is it not really the secret of the success of the much heralded Danish cooperative enterprises? Is not the same thing true of the California Fruit Growers' Exchange, The American Cranberry Exchange, the egg producers' associations of both the Pacific and Atlantic Coast states, and, to a considerable extent, of the raisin and prune growers? Of course the opportunities for quality betterment are not equal for all farm products. Where they do exist, advantage should be taken of them.

In concluding my remarks, may I make a plea for sounder building of cooperative organizations? We need more of the type of building that starts at the bottom and builds up. We need closer contact between members and management. We can get along with less enthusiastic promising of results but need a wider understanding of basic principles. We need to depend more upon intelligent membership loyalty based upon a knowledge of facts and less upon legalistic control. Loyalty can not be expected to continue, of course, unless economical and efficient service is performed for the members. Let us try harder to do and say those things that are for the good of the movement and avoid the making of statements merely to be popular. In short, let us not forget for one moment that in dealing with cooperative marketing we are dealing with business activities which need to be approached from that viewpoint.

## **FOURTEENTH ANNUAL MEETING, AMERICAN FARM ECONOMIC ASSOCIATION**

**Washington, D. C., December 27-28-29, 1923**

**December 28, 4 p. m.**

At the conclusion of the program the Association was called to order by President Cooper for the purpose of receiving the reports of the standing committees. The Teaching Committee and the Committee on Investigation made oral reports which were received by the Association. The report of the Committee on Extension was read by Mr. H. M. Dixon and accepted by the Association. The report of the Committee on Terminology was read by L. C. Gray. The Association voted to receive the report and place it on file. The following committees were appointed: H. C. Tolley and W. D. Nicholls, Committee on Auditing; H. C. Taylor, J. T. Horner and H. C. M. Case, Committee on Nomination; G. F. Warren, J. A. Foord and O. G. Lloyd, Committee on Resolutions; C. L. Stewart, B. H. Hibbard and W. I. Myers, Committee on Local Chapters. President Cooper reported the appointment of the following committees during the year:

At the request of Dr. Butterfield, Professor Andrew Boss, Dean F. D. Farrell and Prof. O. G. Lloyd were appointed as a committee to cooperate with the committee from the Country Life Association in the preparation of a syllabus on "The Relation between Economic and Social Aspects of the Farm Question."

Upon the request of Professor K. W. Woodward, Chairman of the New England Section of the Society of American Foresters, a committee consisting of Dr. O. E. Baker, Chairman, Dr. R. E. Ely and Dr. J. Russell Smith were appointed to cooperate in the standardization of the requirements in forestry in agricultural colleges, normal schools, high schools and graded schools. Dean F. D. Farrell and Professor W. D. Nicholls were appointed as delegates to represent the American Farm Economic Association at the International Farm Congress held at Kansas City, Missouri, October 10-12. Dean Farrell attended the Congress and submitted a report on the same.



FOURTEENTH ANNUAL MEETING, AMERICAN FARM 125  
ECONOMIC ASSOCIATION.

The meeting was then adjourned. The program for the three days was carried out as printed, except that there was no business meeting on Tuesday morning. Roger W. Babson and A. Leitch were not present, but their papers were read.

**December 30, 1923**

The meeting was called to order by President Cooper. The minutes of the previous meeting were adopted as printed in the January, 1923, issue of the Journal. The report of the Secretary-Treasurer was read and accepted. The report of the Committee on Auditing was read and accepted. The committee appointed last year to cooperate with the Country Life Association was reappointed by President Cooper for the coming year. Mr. Kellar, of New Jersey, made a motion that a committee be appointed to look into the feasibility of the establishing of an honorary society of Agricultural Economics. The motion was seconded, discussed, and voted down.

The Committee on Resolutions presented the following resolution, which was adopted:

The American Farm Economic Association commends the proposal for a National or International Institute on Cooperation, to be held under the auspices of some reputable educational institution, at which courses shall be conducted in the history, theory and technique of cooperation.

The Committee on Local Chapters presented the following report, which was adopted by the Association:

"The committee holds the opinion that local chapters promote the objects of the American Farm Economic Association.

The field for local chapters lies not only in educational institutions, but also in larger cities where agricultural research and legislation is in process. This is shown by the experience of the District of Columbia Chapter and by the agricultural economic clubs of Cornell University, Kansas State Agricultural College, Purdue University, and the University of Wisconsin.

In order to promote local branches in educational institutions the committee recommends that provision be made

for associate membership, at a reduced rate or fee in the case of students whose clubs are affiliated with the American Farm Economic Association. To that end it is proposed that Section I of Article V of the Constitution be modified. This section now reads:

"Dues and Subscription.—The rate for members of the Association shall be two dollars per year, payable in advance. This amount is divided as follows: Annual dues, fifty cents, and annual subscription to the Journal, one dollar and fifty cents."

It is proposed that the word "regular" be prefixed before the word "members" in the section as it now stands, and that a new paragraph be appended as follows:

"Associate membership at one-half the rate for regular membership shall be open to under-graduate students and to graduate students below the rank of instructor, provided they are members of a local chapter of the Association. An annual subscription to the Journal of Farm Economics shall be entered in the name of each associate member. If the cost of an annual volume of the Journal is less than the rate for associate membership, the difference shall be employed as the Executive Committee deems best."

In order to promote local chapters in populous and strategic areas, other than those served by chapters in educational institutions, the committee recommends trial of the following plan for the year 1924. It is proposed that—

As soon as the names of one hundred persons who reside or are occupied in an area that contributes attendance to a local chapter of the Association are recorded as regular members of the Association for the year, the treasurer of the Association shall be authorized to reimburse the local chapter in that area for necessary expenditures incurred by the chapter, provided the total amount so reimbursed shall not at any time exceed one-eighth of the membership fees for the year actually paid in from that area.

The Committee on Nominations presented the following report: For President, E. G. Nourse; for Vice-President, W. I. Myers; for Sec.-Treas., J. I. Falconer. There being no other nominations the secretary was instructed to cast one vote for those nominated. They were declared elected. The meeting was then adjourned.

**FOURTEENTH ANNUAL MEETING, AMERICAN FARM 127  
ECONOMIC ASSOCIATION.**

**Estimated attendance at meetings:**

|                          |     |
|--------------------------|-----|
| Thursday afternoon ----- | 150 |
| Thursday evening -----   | 100 |
| Friday morning -----     | 200 |
| Friday afternoon -----   | 100 |
| Friday evening -----     | 75  |
| Saturday morning -----   | 100 |

At the luncheon held at the New Ebbitt on Saturday noon there were 109 present.

**MEMBERS WHO REGISTERED AT THE WASHINGTON MEETING  
DECEMBER, 1923**

|                      |                    |                    |
|----------------------|--------------------|--------------------|
| C. R. Arnold         | A. B. Genung       | Frank Parker       |
| W. W. Armentrout     | John B. Gordon     | F. A. Pearson      |
| O. C. Ault           | L. R. Gottlieb     | Geo. A. Pond       |
| Joseph A. Becker     | H. C. Grant        | Roy C. Potts       |
| M. R. Benedict       | Lewis C. Gray      | Emil Rauchenstein  |
| P. W. Bidwell        | W. E. Grimes       | E. E. Reynolds     |
| E. A. Boeger         | V. B. Hart         | L. A. Reynoldson   |
| E. B. Brossard       | E. S. Haskell      | R. J. Saville      |
| F. A. Buechel        | J. S. Hathcock     | Leo. J. Schaben    |
| R. T. Burdick        | H. W. Hawthorn     | Wm. A. Schoenfeld  |
| C. A. Burmeister     | Bertha Henderson   | H. R. Smalley      |
| Russell L. Burrus    | B. H. Hibbard      | Leland Spencer     |
| Dana G. Card         | John A. Hopkins    | W. J. Spillman     |
| H. C. M. Case        | J. T. Horner       | Oscar Steanson     |
| Charles G. Carpenter | Byron Hunter       | Carl R. Swinson    |
| Chris L. Christensen | Wm. D. Hurd        | C. Y. Tang         |
| J. Coke              | J. B. Hutson       | O. C. Stine        |
| Louis G. Conner      | Arthur H. Jenkins  | Charles L. Stewart |
| A. B. Cox            | R. D. Jennings     | Jesse W. Tapp      |
| Thomas Cooper        | O. B. Jesness      | C. C. Taylor       |
| L. C. Corbett        | Ernest R. Johnson  | H. C. Taylor       |
| R. B. Corbett        | Henry Keller, Jr.  | P. R. Taylor       |
| A. J. Dadisman       | R. G. Kifer        | R. P. Teele        |
| G. N. Dagger         | E. L. Kirkpatrick  | Lloyd S. Tenny     |
| I. G. Davis          | H. L. Knight       | E. H. Thomson      |
| Wm. Hart Dexter      | O. G. Lloyd        | H. R. Tolley       |
| Samuel H. DeVault    | C. G. McBride      | H. M. Tory         |
| Eric Englund         | Theodore Macklin   | D. S. Tucker       |
| H. C. Erdman         | Louise Marbut      | Shih-Tsin Tung     |
| Mordecai Ezekiel     | J. E. McCord       | V. N. Valgren      |
| J. I. Falconer       | John M. McKee      | H. E. Van Norman   |
| Cora L. Feldkamp     | Bruce McKinley     | Allen G. Waller    |
| John R. Fain         | Cap E. Miller      | G. F. Warren       |
| E. O. Fippin         | Samuel W. Mendum   | Frederick V. Waugh |
| Lewis B. Flohr       | Earle L. Moffitt   | Georges M. Weber   |
| J. A. Foord          | Carn W. Montgomery | E. C. Westbrook    |
| G. W. Forster        | Louis S. Murphy    | R. H. Wilcox       |
| R. Fing              | W. I. Myers        | Rex E. Willard     |
| Josiah C. Folsom     | W. C. Nason        | E. J. Working      |
| W. C. Funk           | H. G. Niesley      | C. G. Worsham      |
| L. P. Gabbard        | W. D. Nicholls     | Andrew S. Wing     |
| H. S. Gabriel        | C. V. Noble        | E. C. Young        |
| Wilson Gee           | E. G. Nourse       |                    |

A total of 128, of whom 70 were from outside Washington, D. C.

## REPORT OF EXTENSION COMMITTEE

The general economic condition of the farmer, while showing some improvement over the year previous, is still a paramount issue in extension teaching.

The interest of farmers in extension work, along both farm management and marketing lines, has been rapidly increasing. Although the amount of work accomplished in 1923 along each of these lines is not as yet available in statistical form, sufficient evidences are available to indicate marked advancement along both of these lines in 1923. Appreciation is becoming more general of the fact that the extension work along each of these lines is a problem involving the united action of the departments of agricultural economics cooperating with the extension service in coordinating both research and extension along definite lines, with the definite objective of meeting the practical problems affecting farmers through the assistance of the county agents now in 2,022 counties of the United States.

It is also quite generally appreciated that the ultimate success of extension work in the long-time procedure will be in about the proportion to which it is correctly adjusted to the trend of economic events. This is throwing additional responsibility and work upon the Department of Agricultural Economics and Farm Management in the way of supplying a background of economic facts for the proper determination of an extension program by the county agents and groups of farmers along sound production lines. This is becoming so generally appreciated by extension leaders that in a number of States where the work cannot otherwise be performed the extension service is preparing and analyzing such facts.

The economics of distribution is likewise of widespread and increasing importance. The rapid development of the cooperative marketing movement is demanding additional thought and attention. The organization and operation of cooperative associations are subject to the same variation in returns as are individual farms, and the facts back of successful and efficient cooperative organization and management are in great demand at this time.

In order that this association might have first-hand facts regarding the program of marketing extension work now in operation in the various States, as well as the additional work proposed for 1924, the committee sent a questionnaire to the

leaders of this work, and replies were returned from fourteen States, as follows:

|               |            |
|---------------|------------|
| From—Alabama  | Maryland   |
| Arkansas      | Minnesota  |
| Connecticut   | New Mexico |
| Indiana       | New York   |
| Iowa          | Oregon     |
| Kentucky      | Texas      |
| Massachusetts | Virginia   |

### Question No. 1

Is the marketing extension work being handled in your State by the agricultural economics (or farm management) department or by the various subject matter departments directly interested?

Replies to this question showed that subject-matter for extension teaching is being obtained mainly from the agricultural economics or the farm management departments in all States having such departments, aided by the various subject-matter departments directly handling the production problems of the commodity, and from the Bureau of Agricultural Economics. In other States, the subject-matter is obtained mainly through the various subject-matter departments directly interested and the Bureau of Agricultural Economics, U. S. Department of Agriculture.

### Question No. 2

Regarding the compiling of information relative to existing marketing agencies, methods of organization and operation and degree of success being enjoyed:

a. Do you regard such activity as proper extension work, or do you hold that extension workers must await research studies?

b. What has been done along this line in your State and by what agencies?

c. What plans are in mind for the future?

The replies to this question show that the leaders feel this type of material is essential to good extension teaching.



Mr. Thompson, of Iowa, replied to this question as follows:

(a) Generally, best results would seem to be obtained by having certain individuals responsible primarily for extension activities and others charged with the duty of investigational phases. In some cases, extension activities serve to crystallize the perception of the need for research work; but, suitable provision for research work should be made before launching a comprehensive program of extension activities.

(b) One man spends three months on extension work and the remainder of his time in teaching and research. There is close cooperation between the two groups.

(c) Some plan will be followed in future as that discussed in a. and b.

Mr. Jesness, of Kentucky, commented as follows:

(a) Extension work should maintain the closest possible contact with regard to existing marketing organizations and developments, and extension workers should study these things in order to keep informed. However, we regard any detailed studies of marketing methods and agencies as coming within the research field, and therefore as part of our experiment station activities.

(b) We have made studies and published results of methods of marketing strawberries and blue grass and orchard grass seed in Kentucky; have studied cooperative marketing of poultry and eggs. The work is carried as part of our experiment station work. In cooperation with the U. S. Dept. of Agriculture, we devoted some attention to standard grades for tobacco.

(c) We hope to include studies of marketing of other products in the future.

Dr. Ladd, of New York, added the following suggestion:

(a) Every extension worker should do a small amount of research each year, and this is a good place to begin.

Mr. Taylor, of Virginia, replied as follows:

(a) In the absence of adequate information and research studies, it is altogether proper to gather such information through extension channels. Such intimate knowledge, acquired thus, enables extension workers to teach and demonstrate more effectively.

(b) The preceding marketing specialist in this State compiled a list of cooperative associations in Virginia. Articles of incorporation and by-laws are gathered and filed by extension specialist. The marketing specialist attends important board meetings of cooperative associations and there studies particular problems and offers advice.

(c) Plan to continue above; to gather financial statements of cooperative associations; to make an "office survey" of the private marketing activities of the State.

Mr. McFall reports two counties in Massachusetts making both city and country surveys and during the next year they will extend the Boston food study and make a survey of cooperatives of the State.

The commodity divisions of the Bureau of Agricultural Economics of the U. S. Department of Agriculture have compiled and made available a vast amount of information relative to the various marketing agencies and the functions performed by each. The market news service, inspection of fruits, vegetables, hay, dairy products, poultry products, etc., and suggestions for grades and standards for many products are available, also moving pictures and lantern slide material.

Two mimeographed circulars are issued regularly by the Bureau of Agricultural Economics. One entitled "Marketing Activities" goes to college, research, teaching, and extension workers, to State divisions of markets and to the marketing specialists in business.

The other circular entitled "Agricultural Cooperation" goes to editors, managers of cooperative associations, to those specializing in cooperative marketing, to economists connected with both professional and business activities and to others interested in this subject at the colleges. This publication is also requested from a number of foreign countries.

### Question No. 3

What phases or projects of marketing work do you recognize as being clearly in the extension field? (List in order of relative importance.)

The replies to this question indicated some variation of opinion as to the scope of the work in marketing extension. Following are some of the projects mentioned:

1. Market analysis.
2. Market business practice.
3. Educational contacts at special and annual meetings of cooperatives and with commercial handlers of farm produce.
4. Supplying of information on marketing and organization questions.
5. The carrying on of educational programs for better understanding of the economics of marketing.
6. Conducting educational campaigns for the improvement of agricultural products, through proper handling of products on farms and in local markets, and by better grading.
7. Assistance in the development and adoption of suitable organization plans.
8. Assistance to farmers in finding satisfactory outlets for products.
9. Interpreting and making available market news.
10. Consumption surveys.

#### **Question No. 4**

What extension activities in marketing are being carried on in your State as:

First: Educational activities to promote a better understanding of the economics of marketing on the part of—

- (1) Farmers?
- (2) Business and professional men having contact with and influence on farmers?
- (3) Urban consumers?

Second: Organization activities, such as helping to form associations or the giving of information to existing or prospective cooperatives?

The following educational activities with farmers in marketing extension were given:

1. Meetings, lectures and short courses.
2. Extension publications and news articles.
3. Organization of junior market associations in club work.
4. Demonstrations in cooperative marketing, such as live-stock shipments.
5. Grading and packing demonstrations.
6. Correspondence course.
7. Interpretation of market information.

Mr. Thompson, of Iowa, summed up his reply to this question as follows:

"We are endeavoring to correlate closely the farm management and marketing activities and to convey the impression that while there is room for a more efficient handling in reduction of costs on the marketing side, the farmer himself has a very real obligation in adjusting production to market needs, as well as of cutting his production costs. We endeavor to carry this viewpoint through all of our extension work both in farm management and in marketing."

Activities with business and professional men by the leaders of the marketing work may briefly be summed up as follows:

1. News articles.
2. Talks to business organizations.
3. The holding of conferences with grain dealers, milk dealers, etc.
4. The forming of economic clubs made up of the university staff and business men for discussion in connection with correspondence course in marketing mentioned by Indiana.
5. Discussions of results of marketing cost studies.

Regarding educational work with urban consumers, very little is under way, except a Boston food study mentioned by Mr. McFall. The Bureau of Agricultural Economics and Pennsylvania State College of Agriculture conducted a production and consumption survey at Altoona, Pennsylvania. One State mentioned contacts through the chambers of

commerce to give the fundamental of marketing to business and professional men and to urban consumers. Another State mentioned efforts to reach urban consumers through lectures on cost of production and marketing, and various agricultural economic subjects.

Regarding organization activities, such as helping to form associations, or the giving of information to existing or prospective cooperatives, the ideas in the minds of these men can best be understood by quotations from them.

Mr. Wallace, of Arkansas, replied:

"Two years ago there was considerable activity here toward organization of cooperative marketing associations and extension forces gave all assistance possible in this work. At present we are trying to do purely educational extension work, and are furnishing the associations all the market information commensurate with this policy."

Mr. Thompson, of Iowa, replied:

"This institution does not seek large activities along organization or promotional lines. It stands ready at any time to give such information when requested. The organizing function is being taken over, to a considerable extent, by overhead commodity agencies. For example, there is a State association of farmers' elevators and a State association of cooperative livestock shipping associations. Where associations are able to maintain the commercial agency of this type, it is a very desirable situation.

"Our major activities are in aiding existing associations. There are more than 600 shipping associations and approximately 500 elevators. In addition, there are fully 300 cooperative creameries. Every factor having to do with successful operation of such organizations is given careful attention."

Mr. Jesness, of Kentucky, replied:

"In connection with organization activities, we assist by advising farmers as to advisability of organizing and regarding suitable organization plans. We hope to expand the educational program in the extension field. The work with tobacco associations to demonstrate better methods of grading and sorting has met with considerable favor."



Mr. Bomberger, of Maryland, replied:

"Extension agents find that organization activities are a good field, and much good work is being done."

Dr. Ladd, of New York, replied:

"In organization activities, probably most of the work is in furnishing information, rather than in encouraging the formation of more associations."

Mr. Taylor, of Virginia, replied:

"Organization activities occupy a great deal of time. The most effective service is through the drawing up of legal forms and in meeting with boards of directors at their meetings."

#### Question No. 5

What definite phases or projects in marketing extension have you in mind for the next few years? (List those in your opinion in order of importance.)

In replying to this question, most of the States indicated that they would continue along the general lines outlined in their replies to question No. 4, expanding the educational program so as to reach greater numbers and to reach them more effectively.

Continued emphasis will be placed upon grading and standardizing, upon market analysis and improved business practice. The expansion of commodity work to additional crop and livestock enterprises was emphasized from several States. They mentioned some of the phases to be undertaken, as follows:

1. Boston Food Study.
2. An attempt to standardize the fruit and vegetable industry of Arkansas.
3. To improve poultry and egg marketing.
4. Making studies of the sources of food supply.
5. Development of marketing feeder hogs as a business in Arkansas.
6. Organize additional cooperatives.

7. Increased assistance to cooperatives in increasing business efficiency.
8. Publishing approved plans for organization.
9. Installing proper accounting systems.

In connection with his reply to this question Mr. Taylor, of Virginia, stated as follows:

"Individual farmers can be more effectively reached through commodity associations who *coerce* their members into proper grading, hauling, packing, and to some extent, cultural practices. Through a manager or director, one's efforts are multiplied in the same way as through a county agent, except that a good manager has the advantage over the county agent in that he is more highly specialized in marketing and in that particular commodity. However, the county agent as a magnifier of individual effort, should not be overlooked."

#### Question No. 6

What extension methods in marketing developed in your State have proved unusually successful?

Although question No. 6 would seem to be one of the most important to extension workers for organizing and carrying out a program of work, it was not answered so carefully by many States, and does not, therefore, show the progress made in many of these States in developing methods of marketing extension work. Undoubtedly, one reason for this was the length of the questionnaire.

Mr. Mehl, of Connecticut, states as follows:

"In conducting our extension work in marketing, we use the following methods:

- (a) Study actual conditions.
- (b) Discover what methods would improve conditions.
- (c) At farmers' meetings give results of our studies and explain methods whereby conditions could be improved for the producer.
- (d) Where necessary, assist in organizing a cooperative association, and then render aid in getting it firmly established.

(e) After the association is organized, we help to solve its problem and to acquaint its members with the policies of the manager and directors."

Mr. Thompson, of Iowa, replied:

"The short course method of instruction has proved very satisfactory for officers and managers of cooperative live-stock shipping associations and farmers' elevators. Most of these courses have been of two days' duration, including considerable laboratory work on accounting, round table discussion, and first hand study of market machinery.

"Following the short course contacts, intensive demonstrations have been established with more than fifty live-stock shipping associations, and records are available from some of these organizations covering more than a year.

"Best results for teaching membership loyalty have been obtained through annual meetings. The efficiency of our work is greatly increased by close cooperation with over-head commodity organizations and with county agents."

In the opinion of the committee, an important and immediate need in extension marketing activities in many States is that of additional thought to a positive plan of activity. There is also a very great need for investigational work in studying marketing organizations, both cooperative and commercial, from the same standpoint that farms are studied in our farm management investigational work.

The farm management extension leaders have made marked progress during the past year, both in the development of a better balanced program and in the methods to be used in organizing and conducting the work to reach the greatest numbers of people effectively. The main lines of work given attention follow:

1. Farm organization through farm accounts and farm business analysis.
2. Cost accounting on particular crop and livestock enterprises.
3. Boys' and girls' farm record clubs.
4. Farm management tours.
5. Dissemination of timely economic material.
6. Program analysis and correlation.

7. Farm accounting in the rural schools. There is a marked increase in the amount of work accomplished along each of these lines in 1923 over that for 1922.

The development of the simple farm account book followed by the organizing and conducting of farm accounting schools in large numbers is beginning to show the effectiveness of this method of attacking the farmers' farm management problems. To get at these problems in any definite way naturally, the first development was that of preparing and making available an account book simple and easily understandable in make-up, and of aiding farmers in keeping account and analyzing the business along these lines. The second development was that of the farm account schools. The work is now in the third stage of development, which is that of the assistance to farmers in summarizing and analyzing their accounts. This is accomplished through the use of the farm account summarizing schools. The farmers who have kept records through the year, meet for a study of their own business, and in the light of additional facts available, determine the factors which enable the farmers to make profitable changes for the following year. This same method of work is applicable and in use with single enterprises. An interesting and important development in the work has therefore been the success of the summary school as a means of teaching farm management.

The leaders of the farm management extension work realize the importance in developing a well-balanced program of work, of having as a background of information a thorough analysis of the agriculture of the State. It is only through this means of attack that their services in providing an economic background for extension programs can be fully utilized. This work should likewise precede the development of work of general educational value along the line of prices and other economic information. A number of States have made important progress in this connection during the past year.

In order to make available to this association some of the more outstanding accomplishments in farm management extension this past year in the various States, together with the lines of work to be added in 1924, a questionnaire containing two questions was sent to the leaders of the work in the dif-

ferent States. A synopsis giving the more outstanding points in the replies to each of these questions from the twenty-five States, follows:

### Question No. 1

What were the outstanding developments and accomplishments in farm management extension work in your State the past year?

Getting farm accounts and enterprise cost accounts kept and summarized by farmers in increased numbers and in an organized way in an increased number of areas of the States over the results for the previous year was reported from many States as one of the outstanding accomplishments.

The development of the community project work in farm accounting carried on largely under the local leadership plan was mentioned. In several States, the work is organized and conducted through both junior and senior account clubs. These clubs hold regular meetings during the year, and farm management and other economic material is supplied them as a basis for their program.

For the work with young people the increased number of boys and girls completing the record club work and the teaching of farm accounting in the district schools was mentioned. One State reports that at least six farm account summarizing schools will be held this winter for boys keeping records on home farms as the result of account courses received in district schools. In Connecticut fifty-two clubs were organized and conducted with older boys and young men starting in farming.

The use of the farm business analysis of a number of farms in an area as a basis for a community program of work, as well as to demonstrate the possibilities in self-help through the better organization or operation of the farm has been extended in several States. The work in Indiana in developing local extension programs through special surveys and analysis by local committees working with extension specialists was carried out in ten counties during the year. With this same idea of securing information as a basis for making plans for extension work, Mr. Jones, of Maine, reports such work completed in five counties during the past year and gave the following sum-up of the work in that State: "With this in-



formation available, namely (1) information regarding what the farmers are doing, (2) what their marketing and transportation facilities are, and (3) what their local soil and topographical conditions are adapted to, we will be in a better position than ever before to judge the type of farming that should be encouraged and the kind of an extension program which will best fit the needs of the various sections of a county and incidentally various sections of the State."

One State reports making available to county agents the economic background data as a basis for their annual reports of work this year. Other States also report attention to the preparation of data of value in making plans of extension work. Census data and other agricultural statistics have been made available.

The development of the more general educational work along the line of "prices," economics of production and other economic information has showed considerable progress toward its being carried out in a more organized way than previously in most States. As an instance, Mr. Cavert, of Minnesota, has conducted such work in cooperation with the livestock specialists by holding schools in the beef cattle feeding district of the State just ahead of the time the farmers were going to purchase their stock. At these schools they presented to farmers the facts regarding the beef cattle situation. Timely economic material has also been given out at opportune times at many meetings in a number of other States during the past year.

The making available each month of the facts included in the multigraphed circular entitled "The Agricultural Situation" by the Bureau of Agricultural Economics is of much benefit and value to extension workers in this connection. The later developments in connection with this circular, whereby a summarized copy of it is being sent regularly to a number of farmers throughout the country, is important. The States of New York, South Dakota, and Iowa also prepare and distribute similar material regularly. Several additional States make available through "The Extension Service News" and in other ways timely economic news.

As a means of demonstrating good farm organization and management the farm management tour has been found very effective, and the use of this method is being extended each year.

**Question No. 2**

What lines of work will be added in 1924?

The replies to this question indicated that there would be no radical shift of work in any State. Some will add lines of work such as junior club work, enterprise cost work, the spread of economic information, etc., while a number of others indicate that there will be no increase in lines of work, but instead all effort will be toward reaching a greater number of people with the same lines.

The committee wishes to emphasize the importance of organizing and conducting farm management extension work to increasingly reach more people. This may be accomplished by greater use of the local leadership plan of instruction, and it may also be accomplished in part by developing more research work in many States to take the burden of investigational work off the shoulders of the farm management extension man.

In this brief summary of both marketing and farm management extension work, it has not been possible to discuss all the interesting phases mentioned in the replies to the questionnaire sent the leaders. For that reason we are having the replies from all States carefully digested and mimeographed, and will gladly supply them to members of this association upon request.

Committee:

H. M. DIXON, *Chairman*, U. S. D. A..

DR. C. E. LADD, New York,

C. R. ARNOLD, Ohio,

L. S. ROBERTSON, Indiana,

PROF. M. R. BENEDICT, South Dakota.

## NEW MEMBERS, OCTOBER 1 TO DECEMBER 31, 1923

|  |   |
|--|---|
| Burrus, Russell L.                       | Dept. of Animal Husbandry, Univ. of Maryland, College Park, Md.                     |
| Christensen, C. L.                       | 21 Perkins Hall, Cambridge, Massachusetts.  |
| Clark, H. W.                             | Ont. Agri. College, Guelph, Ont., Canada.   |
| Drobish, Harry E.                        | 609 Bird St., Oroville, Butte Co., Calif.   |
| Dunlop, W. R.                            | College of Tropical Agri., Trinidad, West Indies.                                   |
| Gay, M. C.                               | 750 Boulevard Ave., Athens, Georgia.  |
| Gee, Wilson                              | Univ. of Virginia, University, Virginia.  |
| Gordon, John B.                          | 944 Munsey Building, Washington, D. C.  |
| Grant, H. C.                             | Manitoba Agri. College, Winnipeg, Man., Canada.                                     |
| Green, Kenneth W.                        | Langdon, North Dakota.  |
| Hatchcock, J. S.                         | Dept. of Agri. Econ. College of Agri., New Brunswick, New Jersey.                   |
| Hensley, Harry C.                        | 226 New Agricultural Building, Columbia, Missouri.                                  |
| Hylus Paul                               | Wis. Dept. of Agri., State Capitol, Madison, Wisconsin.                             |
| Johnson, E. R.                           | U. S. D. A., Washington, D. C.  |
| Kendrick, M. S.                          | 507 E. Buffalo St., Ithaca, New York.   |
| Kifer, R. S.                             | Bureau of Agricultural Economics, U. S. D. A., Washington, D. C.                    |
| King, Albert E.                          | 450 Equitable Building, Denver, Colo.   |
| Knight, H. L.                            | U. S. D. A., Washington, D. C.  |
| Knox, Frederick H.                       | Portland, Michigan.   |
| Manning, F. L.                           | Dept. of Agricultural Economics, College of Agriculture, New Brunswick, New Jersey. |
| Marbut, Louise                           | Office of Experiment Stations, Wash., D. C.   |
| National Industrial Conference Board     | 10 E. 39th St., New York City.  |
| Parker, Frank                            | N. C.—U. S. Department of Agriculture, Raleigh, North Carolina.                     |
| Perregaux, E. A.                         | 118 Eddy St., Ithaca, New York.   |
| Pinkham, Vernon C. D.                    | Storrs, Connecticut.  |
| Robinson, F. H.                          | Box 292, Clemson College, South Carolina.   |
| Smith, Byron T.                          | 611 E. Seneca St., Ithaca, New York.  |
| Taylor, P. R.                            | Pa. Dept. of Agri., Harrisburg, Pa.   |
| Tung, S. T.                              | 212 Fall Creek Drive, Ithaca, New York.   |
| Weber, Georges M.                        | Inst. of Economics, 26 Jackson Place, Washington, D. C.                             |
| Parmly Billings Memorial Library         | Billings, Montana.  |
| Library, Metropolitan Life Insurance Co. | 1 Madison Ave., New York.   |
| Department of Rural Social Science       | University of North Carolina, Chapel Hill, North Carolina.                          |
| Brown University Library                 | Eastside Station, Providence, R. I.   |

**THE AMERICAN FARM ECONOMIC ASSOCIATION  
STATE REPRESENTATIVES FOR 1924**

|                 |                 |                                       |
|-----------------|-----------------|---------------------------------------|
| Arizona         | G. E. Thompson  | University of Ariz., Tucson.          |
| Arkansas        | H. P. McNair    | College of Agriculture, Fayetteville. |
| California      | R. L. Adams     | University of California, Berkeley.   |
| Colorado        | L. A. Morehouse | Agricultural College, Ft. Collins.    |
| Connecticut     | Irving G. Davis | Agricultural College, Storrs.         |
| Delaware        | M. O. Pence     | Delaware College, Newark.             |
| Georgia         | D.F.Hungerford  | Agricultural College, Athens.         |
| Idaho           | Byron Hunter    | University of Idaho, Moscow.          |
| Illinois        | H. C. M. Case   | Agricultural College, Urbana.         |
| Indiana         | O. G. Lloyd     | Agricultural College, LaFayette.      |
| Iowa            | S. H. Thompson  | College of Agriculture, Ames.         |
| Kansas          | W. E. Grimes    | College of Agriculture, Manhattan.    |
| Kentucky        | W. D. Nichols   | College of Agriculture, Lexington.    |
| Maryland        | S. H. De Vault  | University of Maryland, College Park. |
| Massachusetts   | M. F. Abell     | College of Agriculture, Amherst.      |
| Michigan        | J. T. Horner    | Agricultural College, E. Lansing.     |
| Minnesota       | W. L. Cavert    | University Farm, St. Paul.            |
| Mississippi     | J. N. Lipscomb  | Agricultural College.                 |
| Missouri        | O. R. Johnson   | University of Missouri, Columbia.     |
| Montana         | M. L. Wilson    | Agricultural College, Bozeman.        |
| Nebraska        | J. O. Rankin    | University Farm, Lincoln.             |
| New Hampshire   | H. G. Eastman   | N. H. College, Durham.                |
| New Jersey      | Henry Keller    | Agricultural College, New Brunswick.  |
| N. Mexico       | L. H. Hauter    | State College.                        |
| New York        | W. I. Myers     | Cornell University, Ithaca.           |
| N. Carolina     | G. W. Forster   | State College, Raleigh.               |
| N. Dakota       | Rex Willard     | 1014 Eleventh Ave., N. Fargo.         |
| Ohio            | J. I. Falconer  | O. S. U. Columbus.                    |
| Oklahoma        | M. E. Andrews   | College of Agriculture, Stillwater.   |
| Oregon          | R. V. Gunn      | Agricultural College, Corvallis.      |
| Pennsylvania    | J. E. McCord    | State College.                        |
| S. Carolina     | I. D. Lewis     | Clemson College                       |
| South Dakota    | M. R. Benedict  | Brookings.                            |
| Tennessee       | C. E. Allred    | College of Agriculture, Knoxville.    |
| Texas           | P. K. Whelpton  | College Station.                      |
| Utah            | E. B. Brossard  | Agricultural College, Logan.          |
| Virginia        | T. B. Hutcheson | Blacksburg.                           |
| Washington      | F. R. Yoder     | Pullman.                              |
| W. Virginia     | A. J. Dadisman  | College of Agriculture, Morgantown.   |
| Wisconsin       | G. S. Wehrwein  | College of Agriculture, Madison.      |
| Washg'ton D. C. | H. M. Dixon     | Bureau of Agri. Econ.                 |
| Wyoming         | A. F. Vass      | College of Agriculture, Laramie.      |

**FINANCIAL STATEMENT**  
**AMERICAN FARM ECONOMIC ASSOCIATION**

December 19, 1923

**Receipts:**

|                                   |          |            |
|-----------------------------------|----------|------------|
| Cash on hand January 1, 1923..... | \$254.38 |            |
| Receipts for the Year.....        | 1,517.49 |            |
| Total to be accounted for.....    |          | \$1,771.87 |

**Expenses:**

|                                      |          |            |
|--------------------------------------|----------|------------|
| Printing of Journal.....             | \$920.03 |            |
| Loan .....                           | 150.00   |            |
| Postage .....                        | 71.25    |            |
| Printing .....                       | 68.85    |            |
| Travel .....                         | 36.00    |            |
| Money order and checks returned..... | 5.50     |            |
| Miscellaneous .....                  | 7.72     |            |
| Check No. 50 (Dec. 14, 1922).....    | 37.45    | \$1,296.80 |
| Balance in Bank.....                 | 405.43   |            |
| Undeposited check .....              | 69.64    | \$475.07   |

**Liabilities:**

|   |          |          |
|---|----------|----------|
| Owing National Pub. Co., October issue..... | \$220.00 | \$220.00 |
| Net Balance on Hand December 19, 1923.....  |          | \$255.07 |
| Net Balance on Hand December 23, 1922.....  |          | 174.63   |
| Net Gain for the Year.....                  |          | \$70.44  |
| Life Membership Fund \$50.00.               |          |          |

*Membership.* There were 674 paid up members in the Association on December 24, 1923, a net gain of two for the year. An encouraging feature is the increasing number of Libraries and Trade Associations which are becoming subscribers to the Journal. The District of Columbia with 79 members now leads. Illinois has 55, New York 41, Wisconsin 29, Iowa 26 and Ohio 21.

*The Journal.* Four numbers of the Journal were published in 1923 having a total of 248 pages, the same number as last year.

*Finance.* Financially the association is in the best position it has been for years.